



# **Reducing Burden of Preventable Non-communicable Diseases**

Biennial Collaborative Agreement (BCA) between the Ministry of Labour, Health and Social Affairs of Georgia and the Regional Office for Europe of the World Health Organisation 2006/2007

# STRENGHTENING CAPACITY FOR INTEGRATED NON-COMMUNICABLE DISEASES PREVENTION AND CONTROL

# **Summary Report**

# NON-COMMUNICABLE DISEASES RISK FACTORS SURVEY IN GEORGIA 2006-2007







**TBILISI 2007** 

Report has been prepared for the BCA Product: Strengthening Capacity for Integrated Noncommunicable Diseases Prevention and Control according the Agreement for Performance of Work (APW) between WHO/EURO and Georgian Medical Association, with a starting date 1 October 2006.

# Acknowledgments

The authors would like to thank Dr. Nikoloz Pruidze, Deputy Minister of Labour, Health and Social Affairs and Dr. Rusudan Klimiashvili, Head of the WHO Country Office in Georgia for their encouragement and guidance. Thanks also to experts and stakeholders from all institutions contributed to the project performance.

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Non-Communicable Diseases Risk Factors Survey in Georgia 2006-2007 was conducted as the part of Priority 4 of Biennial Collaborative Agreement (BCA) between the Public Health Department (Ministry of Labour, Health and Social Affairs of Georgia) and the Regional Office for Europe of the World Health Organization 2006/2007: Reducing Burden of Preventable Non-communicable Diseases.

The goals of the survey were establishment of NCD surveillance system in Georgia, providing of epidemiological information on non-communicable diseases and the prevalence of their risk factors in the community and providing international comparisons of rates and trends in different member countries and demonstration areas.

Study objectives were obtaining detailed information from the examined sample, estimation the prevalence of NCD behavioral risk factors (tobacco, physical inactivity, nutrition, alcohol), as well as biological risk factors (hypertension, hypercholesterolemia, hyperglycemia, overweight and obesity); utilizing the information for developing the needs and planning future interventions for strengthened capacity for integrated NCD prevention and control and establishing NCD survey teams, which will be able to provide surveys in other parts of Georgia and at the National level. Besides of survey component, the objective was to estimate relevant and available for 2007 demographic and health indicators according to WHO/EURO CINDI protocols and guidelines.

Study area was one of the districts of Tbilisi. For NCD risk factor surveillance following activities was performed: information was collected by questionnaire (socioeconomic and demographic variables, tobacco, nutrition, physical activity); physical (body weight, height, waist circumference, hip circumference, blood pressure) and biochemical measurements (blood glucose and total cholesterol) were carried out.

A total of 342 clusters were studied and a total of 2472 persons (49% male, 51% female) of the age 25-65 years participated in the study. The results showed a response rate 72%. The survey implementation lasted for 70 days. In average one respondent's study took 23 min. Studies of each cluster lasted for 3-4 hours on average.

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#### 1. INTRODUCTION

#### 1.1. OVERVIEW

#### GLOBAL SITUATION OF NON-COMMUNICABLE DISEASES

The burden of chronic Non-communicable disease (NCDs) is rising rapidly and has now become a major challenge to global development. The World Health Organization (WHO) report 2002 stated that the mortality, morbidity and disability attributed to the major non-communicable diseases accounted for about 60% of global deaths and 47% of burden of disease. By 2020 these estimates are expected to rise to 73% and 60% respectively. Unfortunately, low and middle income countries are bearing the brunt of these diseases that will have significant social, economic, and health consequences (1).

Chronic or non-communicable diseases (NCDs) such as cardiovascular diseases, cancer, chronic obstructive pulmonary disease (COPD) and diabetes are responsible for 86% of all deaths and 77% of the disease burden in the WHO European Region (*2*). Most of these diseases are attributed to common preventable risk factors. The most modifiable risk factors are tobacco use, unhealthy diet, and physical inactivity.

In response to the rising challenge, a global strategy for the prevention and control of noncommunicable disease was developed in 1999 and endorsed by the World Health Assembly in May 2000 (WHA resolution 53.18). This strategy focuses on assessing the pattern and trends of risk factors of major non-communicable diseases, the national capacity for prevention and control, promoting the development of evidence-based strategy to reduce unhealthy behaviors and major risk factors, and implementing cost-effective and equitable interventions for the management of common non-communicable diseases (*3*).

In the search for more effective strategies to address common determinants and risk factors of chronic disease at national and local levels, a number of Member States are collaborating on the implementation of an integrated approach to chronic disease prevention. In the European Region, this collaboration resulted development of the comprehensive, actionoriented Strategy for the Prevention and Control of Non-communicable Diseases endorsed by resolution EUR/RC56/R2 on 11 September 2006 at the fifty-sixth session of the WHO Regional Committee for Europe. It is integral to the updated Health for All framework, takes account of existing Member States' commitments as well as the experience gained through the Countrywide Integrated Non-communicable Diseases Intervention (CINDI) program (4).

The Non-communicable disease programme of the WHO European Regional Office promotes a comprehensive approach to tackling NCD which simultaneously:

- promotes population-level health promotion and disease prevention programmes;
- · actively targets groups and individuals at high risk; and

• maximizes population.

The European NCD strategy provides participating countries with an integrated approach to activities to prevent and control risk factors and to address their social and environmental determinants. It puts existing knowledge to use – first in demonstration programs in small areas and then countrywide. The integrated approach is based on the concept that several risk factors, such as smoking, high blood pressure, high blood cholesterol, obesity and excessive alcohol consumption, are common to the major NCD and that lowering these common risk factors will reduce the incidence of these diseases and hence improve public health. The integrated approach promotes intervention in areas common to both health promotion and disease prevention through existing health care systems and the active participation of both the community and the individuals.

#### 1.2. NON-COMMUNICABLE DISEASES IN GEORGIA

There has been a recent concern about chronic NCDs in Georgia. The country is undergoing an epidemiological transition with an increasing burden of chronic NCDs. These diseases constitute threats to health in terms of mortality and DALYs (*5*). Although, there are inadequate information about accurate estimates of main indicators.

The greatest disease burden in Georgia comes from Chronic or non-communicable diseases (NCD), the main contributors in the existing health inequalities between Georgia and Western European countries. Another side, it is known that significantly reduce the burden of premature death, disease and disability is possible through comprehensive action on the leading causes and conditions *(6)*.

According to official statistics (7) mortality and life expectancy in Georgia follows the same trends as in other post-soviet countries. It is known that since 1970 increase in the East-West gap in life expectancy and mortality was observed. In virtually all the countries with Soviet health care system mean life expectancy has decreased and mortality rates have increased in contrast to western countries.

The difference in the average rates of life expectancy between the countries of the European Union and the Countries of the former USSR was 7.2 years in the 1990 (while in 1998 the difference reached 10.2 years). About half of the gap is due to mortality differences in cardiovascular diseases (8).

Increase in mortality indicators in Georgia started as early as in 1960 and was increasing gradually, than the rate of increase became faster, and has reached its peak in 1993. It is evident that share of cardiovascular diseases is increasing steadily and constitutes 70 to 75% during recent years. Indicators of cardiovascular mortality in exceed not only average European rates, but also average East European rates, and indicators of some neighboring countries, for example Armenia (9).

Thus, reducing burden from preventable non-communicable diseases has been agreed as one of the joint priorities (BCA Priority 4) for cooperation to be achieved through the joint efforts of the Georgian Government and WHO for the biennium 2006-2007. In support of this, the country expected result (Strengthened capacity for integrated NCD prevention and control) as to be achieved during the biennium and a list of the products (2005 Food based dietary guidelines dissemination package, NCD risk factors survey conducted, Set of recommendations for integrated NCD prevention) has been defined. The links to other priorities within the BCA, such as Strengthening the core health system functions (BCA priority 1) and to WHO Organization-wide expected results (OWERs) are considered.

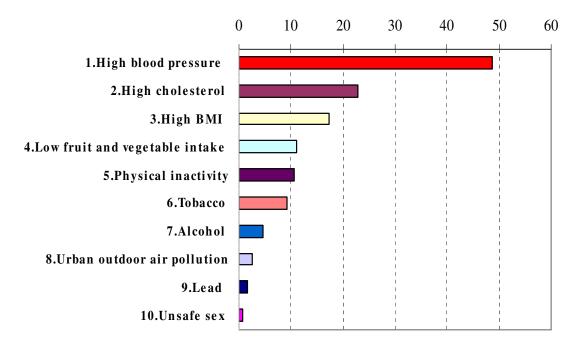
At the same time comprehensive, action-oriented Strategy for the Prevention and Control of Non-communicable Diseases was developed in response to the request made by Member States at the fifty-fourth session of the WHO Regional Committee for Europe in 2004. Georgia actively participates in the process of strategy development. Dr. L. Baramidze served as a member of Drafting Group for the development of the European strategy on non-communicable diseases; Dr. R. Tataradze participated in extensive consultation process with countries, experts, nongovernmental organizations and other stakeholders; One of the drafting group meeting was organized in Tbilisi and hosted by Georgian Ministry of Labor, Health and Social Affairs with support of World Health Organization (WHO) Country Office in Georgia; The Georgian CINDI experience was presented in the European Conference on Chronic Disease Prevention in Helsinki, Finland (December 2005).

#### **1.3. NEEDS OF RISK FACTORS SURVEILLANCE**

There is a clear need for relevant, valid and comparable health survey information at the European level. The existing information suffers from poor coverage of the most important health items, poor quality and comparability as well as from lack of coverage and accessibility. To improve the situation, collaboration between counties, organizations and experts is needed. Improving national health interview and health examination surveys should be the main approach.

To get reliable and comparable information from selected health indicators, standardized measurement protocols and questionnaires need to be developed and validated.

Georgia has witnessed an epidemiological transition with increasing prevalence of chronic non-communicable diseases (NCDs) with their contributory risk factors. Integrated prevention and control strategies are most effective-focusing on the common risk factors and cutting across specific diseases. So, the basis of prevention is identification of the magnitude of the common risk factors for their prevention and control (HER, 2002). Currently, data on NCDs and their risk factors is either very scanty or not collated. Timely and ongoing information is needed on the magnitude and trends of these diseases and their risk factors.



# Country-specific estimates of the burden of attributable risk; Shares of total deaths and DALYs attributable to leading risk factors for Georgia; Adapted from the European Health Report 2005

Like other post communist countries, Georgia has many economical difficulties. Health care expenditures as % of GDP, which was much less compared to not only low-middle income, but low income countries. Today, situation has somewhat improved but it is still far from the desirable. In ninety nineties, because of economical difficulties epidemiological surveys were not very intensive, but some were still conducted. Various Individual Projects were carried out in the years 1995-1998.

The CINDI Health Monitor survey was conducted in 2001 at the CINDI demonstration area (one district of Tbilisi) by the CINDI Georgia Team. The Health Behavior Survey was conducted by the CINDI Georgia team in 2004.

These and other projects have allowed us to suggest about trends of increasing risk factors of CVD in Georgia. Namely: Increase in number of smokers, especially among women (9.5 times) during years 1980 to 1995. Various independent surveys have shown sharp increase in prevalence of hypertension, which exceeded 50% in age group 40-65 (The American International Health Alliance projects) *(10)*.

Aspirin was very rarely used for CVD prevention. In spite of decrease in food calories, obesity was quite widely spread. Only one half of men and one third of women were physically active in their leisure time (including young people). But despite all above mentioned facts in general until recent years prevention of CVD was never considered as the main priority for Georgian health care.

Therefore, there was a need to establish a national baseline data in order to be utilized for developing a national NCD prevention and control program. This survey is considered the first national survey for NCDs risk factors in Georgia.

#### 1.4. GOAL

- To establish an NCD surveillance system in Georgia;

- To provide of epidemiological information on chronic non-communicable diseases and the prevalence of their risk factors in the community. This information will be used to plan National strategy for NCD prevention and control.

- To provide international comparisons of rates and trends in different member countries and demonstration areas.

#### 1.5. OBJECTIVES

- To obtain detailed information from the examined sample;

- To estimate the prevalence of NCD behavioral risk factors (tobacco, physical inactivity, diet, alcohol), as well as biological risk factors (hypertension, hypercholesterolemia, hyperglycemia, overweight and obesity) in the Tbilisi adult (25-65) population;

- To utilize the information for developing the needs and to plan future interventions for strengthened capacity for integrated NCD prevention and control. These research and implementation models may be enlarged at the National level too;

- To establish an NCD survey teams, which will be able to provide surveys in other parts of Georgia and at the National level;

Besides of survey component, the objective is to estimate relevant and available for 2007 demographic and health indicators according to WHO/EURO CINDI protocols and guidelines.

#### 1.6. SURVEY ADMINISTRATION AND MANAGEMENT

Non-Communicable Diseases Risk Factors Survey in Georgia 2006-2007 was conducted by Survey Team as the part of Priority 4 of Biennial Collaborative Agreement (BCA) between the Ministry of Labour, Health and Social Affairs (MOH) of Georgia and the Regional Office for

Europe of the World Health Organization 2006/2007: Reducing Burden of Preventable Non-communicable Diseases.

The survey was coordinated by the **Public Health Department of MOH**, **Chief Dr. Baramidze L.** 

The Survey administration and management was carried out by:

Dr. Tataradze R, CINDI Georgia Director;

Dr. Barbakadze V, Survey Coordinator;

Dr. Liluashvili K, CINDI Coordinator and Responsible for Quality Assurance

Dr. Nodia N, Survey Manager and Responsible for Data Processing;

Survey Supervisors: **Dr. Trapaidze D; Dr. Burkadze N; Dr. Jijeishvili L** The scientific consultants:

**Dr. Jill Farington,** NCD coordinator, World Health Organization European Regional Office. **Clarence E. Grim**, MD, Clinical Professor of Medicine and Epidemiology, Medical College of Wisconsin, USA.

**Carlene E. Grim**, Shared Care Research and Education Consulting, Milwaukee, WI, USA. **Dr. Aushra Shatchkute**, WHO European Regional Office

# 2. ETHYCAL AND LEGAL ISSUES

All survey protocols were complying with the principles outlined in the Helsinki Declaration (11).

Prepared action plan, the instruments used for data collection and survey protocol were approved by Ethics Review Committee at the MOLSHA.

The survey was performed at participants home. Blood pressure recordings and other measurements, the filling of questionnaire were also taken at that place.

The surveyors were introduced the respondents goal of the survey and survey procedures. After development of informed consent (respondents were sign a consent form), survey teams were performed survey procedures. If an individual were not responded to the survey he/she should be considered as a non- respondent and their personal data were filled in the special non-response forms.

The surveyors were conducted the following procedures at the respondents home: face to face interview using prepared questionnaires; twice blood pressure measurements; weight, height, arm, hip and waist measurement; and venepuncture to take venous blood sample.

The survey teams were performed interventions only according the survey protocols, about what they are informed and notify in advance at the training seminar.

The plastic vacuum sealed tubes were used for collecting venous blood. They have assured safety of respondents and nurses. Before blood sampling commences the presence or absence of exclusion criteria were documented for each survey participant. A special questionnaire was completed for every survey participant, regardless of their participation in blood collection. The list of exclusion criteria is based on The European Health Risk Monitoring (EHRM) Project *(12)*. The procedure was performed only after development of informed consent.

Each person in the sample has an identification code.

The filled questionnaires are kept as personal file. The identificational data and data from questionnaires are placed separately and it is possible to connect them only using unical identification code. The computer data were performed in the same way and we have 2 separated files. Identification data of respondents were confidential, but other data were available for data processing. Basic demographic characteristics (e.g. age and sex) of the persons in the sample are incorporated in the data.

# **3. SURVEY INSTRUMENTS**

- Process evaluation tool (questionnaire);
- smoking habits evaluation tool (questionnaire);
- food habits and nutrition evaluation tool (questionnaire);
- physical activity evaluation tool (questionnaire);
- alcohol consumption evaluation tool (questionnaire);
- anthropometry (measurement);
- BP measurement;
- Cholesterol and glucose screening (measurement and questionnaire).

# 4. MATERIALS AND METHODS

#### 4.1. STUDY AREA

Didube-Chugureti district of Tbilisi.

#### 4.2. POPULATION FRAME

The population frame consists of the population of the district of Tbilisi of 25-65 years of both sexes. The survey frame is based on the multistage probability sampling.

#### Inclusion criteria:

All population of 25-65 years of age, who lived in the selected clusters and was residents of Georgia at the time of the survey implementation.

#### Exclusion criteria:

Temporary residents of Georgia.

#### 4.3. SAMPLING DESIGN

The Sample was designed to provide estimates on a number of indicators on the situation of noncommunicable diseases risk factors in the demonstration area (one district of Tbilisi). Also it was obligatory for each adult member of the sampling frame to have an equal probability of being selected to the sample.

We used an observational study, in particular cross-sectional (prevalence) study. For this purpose the Rapid Survey Method (RSM) was used (13) which is designed by the Chronic Disease Center, Atlanta, USA. RSM consists of two stages. The first is random selection of population according to Probability Proportional-to-size (PPS). At the second stage there was no random selection of population. PPS sampling at the first stage, coupled with a constant number of persons of a cluster (not less than 7) gives for all persons of population the similar chance of being in selected people and this provides precision and statistical confidence of this method (14). The sample was based on a telephone catalogue which represents the target population as well as possible.

We used the 2002 telephone directory of Tbilisi population as a base of random selection of 343 clusters initial addresses. We were studying at the initial address of preliminary selected cluster, all family members at the age of 25-65. After studying the first family a survey team moved to the closest flat or house using "door to door" principle. And it lasted so till the cluster (minimum 7 respondents) was completed. After studying one cluster the survey team moved to the next initial address (cluster) and repeated the procedure.

#### 4.4. SAMPLE SIZE

At least 200 subjects have to be examined in each sex and age groups. Cluster sampling is the reasonable compromise with respect to logistical conditions (expenses and time), but the number of subjects must be increased (usually by one third to one half). A multi stage cluster sampling has been used with stratification. Stratification signs were age and sex. To take into the consideration these factors, minimum sample size should be the following:

AGE (years)	MALES	FEMALES	All
25-34	300	300	600
35-44	300	300	600
45-54	300	300	600
55-65	300	300	600
TOTAL	1200	1200	2400
GRAND TOTAL	24	00	2400

#### Minimum sample size

This calculation is based on the assumptions, which were provided by CINDI (WHO/EURO) data management center:

- significance level  $\alpha$ =0.05;
- power of test  $\beta$ =0.20;
- two sided test of hypothesis;
- sample selection by random procedures;
- independent samples at each surveys;
- defined changes in risk-factor levels.

Estimation of the participation may be done on the basis of previous experiences or pilot study for enlargement the sample size in proportion.

#### 4.5. SURVEY SUPPLIES AND EQUIPMENTS

All teams used only mercury manometers and cuffs of different sizes according to the patient arm circumference. The survey teams have been bringing all survey equipments by themselves.

Necessary supplies and equipments were procured to the Survey Team:

- Stationary;
- Printing questionnaire and other forms;
- Mercury sphygmomanometers;
- 3 different size cuffs;
- Laboratory requirements for blood collection;
- Height scale;
- Weight scale;
- Waist/hip measurement tape.

# 5. TRAINING ACTIVITIES

A Training seminar for survey teams was conducted before the survey implementation. It lasted for tree days and included pretests, posttests and certification.

The training topics were proper techniques for risk factor data collecting, measuring blood pressure and anthropometry, filling the questionnaires.

Training of accurate blood pressure measurement was held according the American Heart Association (AHA) recommendation (15.) The training covered all aspects of the measurement protocol. The training was held using the special program – Shared Care Method of Training and Certification in Accurate Measurement of Blood Pressure (16). Experts from the USA Clarence E. Grim (MD, Clinical Professor of Medicine and Epidemiology, Medical College of Wisconsin, USA.) and Carlene E. Grim (Shared Care Research and Education Consulting, Milwaukee, WI, USA.) provided consultation and video tape for accurate blood pressure measurement. This tape was translated into Georgian. The training was conducted by Dr. Vakhtang Barbakadze and Dr. Levan Koblianidze. They have worked with USA partners on Hypertension programs since 1996.

To qualify for the training, the candidates had to pass a hearing test. The certification included the use of audio tapes, Y-stethoscopes and replicated measurements.

The following topics were included in the training:

- Role of integrated risk factors;
- Survey design, survey essence, aim, objectives;
- Formation of random sampling;
- Survey protocol;
- Survey procedures;
- Questionnaire contents, observation of questionnaire and instructions on its completion;
- Interview skills, technique and methodology of interview;
- Technique of data collection;
- Ethical aspects of the survey;
- Measurement procedures;
- Data checking, possible errors, verification and quality control.

Also, training seminar for the nurses on the blood collecting techniques was conducted by laboratory expert Dr. Kupatadze.

# **6. SURVEY IMPLEMENTATION**

The survey implementation started on the 20th April, and continued through 29 June, 2007. All of the survey teams started collecting data at the same day. The actual field work started in the early morning and could be extended beyond the official working hours. Work continued through holidays. Data collection extended around two month.

An informed consent was taken from the respondents before the interview.

Data was collected by direct interview with the individuals.

The activities for NCD risk factor surveillance included:

1. Information by questionnaire: socioeconomic and demographic variables, tobacco, nutrition, physical activity;

2. Physical measurements: body weight, height, waist circumference, hip circumference, blood pressure;

3. Biochemical measurements: blood glucose and total cholesterol (usually in the next day).

#### **BP** measurement

It is particularly important to avoid a systematic bias in the indirect measurement of blood pressure. We consider potential sources of bias which are those related to equipment, to observer and to the measurement technique, also, environmental factors, such as room temperature, noise and the resting status of the subject. The measurement of blood pressure was held according American Heart Association recommendations.

Subjects were asked to rest for 5 minutes in sitting position before blood pressure measurement.

The survey teams used only mercury sphygmomanometers and three different size cuffs (17).

They used the bell stethoscope, which gives clearer Korotkoff sounds.

Blood pressure was to be measured with the subject in sitting position and the right arm was used. The arm was at the level of the heart during the blood pressure measurement.

The examination took place in a quiet room with comfortable temperature. The room temperature has been recorded routinely.

Blood pressure was being measured two times with 1 minute pause between them and if the differences were more than 4 mm hg, the third measurement was held. Blood pressure was measured with 2 mm accuracy and the records were done respectively.

# 7. LABORATORY INVESTIGATIONS REQUERMENTS

Each data collection team included a trained nurse who was equipped with blood collection supplies. He/she was responsible for drawing blood sample, collection of the samples, management and delivering the samples to the laboratory.

The plastic vacuum sealed tubes were used for collecting venous blood. They have assured safety of respondents and nurses.

Before blood sampling commences the presence or absence of exclusion criteria were documented for each survey participant. The procedure was performed only after development of informed consent. Usually blood samples were taken in the next morning.

Sample collection has been targeted at screening site. Venapuncture has been used for blood collection. Blood sampling procedures have been standardized to the sitting position preferably for at least 5 minutes, because postural changes can alter Blood Cholesterol and Glucose concentration.

Fasting conditions of individuals have been used for Total Cholesterol and Glucose measurements. Blood for fasting plasma have been drawn after the individual have fasted overnight (at least 12 hours).

Venous blood was collected into a vacuum tubs with clot activator. Well enclosed ice bags were used to keep the blood sample till reaching the lab. Collected samples were transported to laboratory within 1 hour.

Serum was used for measurements.

Serum have been separated from the cells within 60 min. Serum was separated by centrifugation at 3000 rpm 4°C within 15 min and stored at -20°C until assay performed (each week).

Blood samples have been measured in a licensed and accredited laboratory - Union of Laboratory Diagnostic at the National Centre of Therapy. Appropriate quality assurance standards and trained staff have been employed.

Laboratory test were performed on the automatic biochemistry analyzer Cobas Mira S (Roche). Calibration was performed with Calibrator for Automated Systems (Roche).

Total Cholesterol was measured by Enzymatic Colorimetric Method CHOD-PAP (Reagent kits by Biocon<sup>®</sup>Diagnostik, Germany) (18).

Glucose was measured by Enzymatic Colorimetric Method GOD-PAP (reagent kits by Biocon<sup>®</sup>Diagnostik, Germany) (19).

Internal quality control procedures were performed by Precinorm U Plus and Precipath U Plus (quality control materials by Roche) automatically according to routine internal quality control chart on the Cobas Mira S systems.

The results of analyses were reported in mg/dl and mmol/l.

# **8. REQUERMENTS FOR ADMINISTRATION OF QUESTIONNAIRES**

The questionnaire has been directly administered by trained interviewer at the screening site. The following general rules have been used:

- The interviewer asks the questions to responder according the questionnaire in verbal manner, the subject answers and interviewer records it in questionnaire;
- If the subject does not answer or appears not to have understood on the first occasion, the question will be repeated in the same form;
- If the subject again does not answer or understand, the question should be asked the third time in different words, with the same meaning as the original questions;
- Answers should be recorded, not interpreted and answers should not be influenced.

# 9. DATA MANAGEMENT

The Survey Team was responsible for data processing. The software used for data processing and analyses were Microsoft Excel and MINITAB.

Data checking and cleaning were done by supervisors.

A survey data entry tool was developed by the Survey Team. Taking into consideration the data entry staff experience, Microsoft Excel program was used.

Data entry was carried out in conjunction with survey implementation. According to the steps instrument requirements, the response options were created and skipping questions were provided.

Detected errors were corrected by returning back to the supervisors.

Survey coordinator, Survey Manager and Supervisors were consulted when constraints were faced.

Data analysis was performed utilizing the software of MINITAB for Windows version 11.12.

The sociodemographic characteristics of the study population were assessed. The prevalence of risk factors among study population and the subgroups were estimated. The relationships of some risk factors were assessed. Test of significance was used for assessment of any observed association.

# **10. QUALITY CONTROL PROCEDURES**

The doctors of the each survey team were required to review and edit all of their questionnaires. Also all filled questionnaires were checked by the respective supervisors.

All of the data were investigated for terminal digit preference, stability of distribution parameters (mean, median, range, standard deviation), and preference of terminal digit "0" for extreme values.

In addition, there were occasional surprise site visits during the survey to check adherence to the protocol and monitoring the performance of the survey personnel.

The data entry was designed to function as a quality control measure by minimizing possible measuring and recording errors. Tolerance levels or ranges had been set for each measurement.

After the study was finished there was evaluation the data quality and provision feedback to the personnel. In this way one can learn from earlier experience and avoid repeating the same mistakes in future studies.

# **11. SURVEY PERSONNEL**

The survey conducted by coordination of Dr. **Baramidze** (Head of the Public Health Department of MOLSHA) and Dr.**Tataradze** (CINDI Georgia Director).

# **Experts**

- **Jill Farington** (NCD coordinator, WHO-EURO) provided consultation throughout the survey;
- International expert in the specialties of Epidemiology and Statistics *Clarence E. Grim* (MD, Clinical Professor of Medicine and Epidemiology, Medical College of Wisconsin, USA.) were consulted at different stages of the work;
- International expert in the specialties of blood pressure measurement *Carlene E. Grim* (Shared Care Research and Education Consulting, Milwaukee, WI, USA.) provided consultation and video tape for accurate blood pressure measurement.
- WHO European Regional Office **Dr. Aushra Shatchkute**,

<u>Administrative Staff</u> (Survey Coordinator *Barbakadze V*; *Liluashvili K;* Survey Manager *Nodia N*) was responsible for organizing the survey, for survey implementation and logistics operations, training activities, preparing the materials, printing and sending official letters and announcements, filing the survey materials, and follow-up and communication with the health directorates, creating of data collection and data processing systems, providing survey analysis, finalization of report and presentation to policy-makers.

# Data collection teams

Each researcher team consisted of physicians, nurse and volunteer.

The data collection team members were selected according to prior experience in survey fieldwork.

A total of five data collection teams were performed for conducting the field survey. Each team consisted of:

- Physician as the head of the team (*Tsereteli N*; *Bakhtadze T*; *Nutsubidze E*; *Jorjoladze K*; *Abesadze T*) were responsible for the interview and checking the information before delivering to the supervisors (*Trapaidze D; Burkadze N*; *Jijeishvili L*).
- Volunteers (medical residents from the Public Health Management Faculty of Georgian University: *Turmanauli M*; *Phanzulaia M*; *Todua T*; *Modebadze N*; *Kiladze T*; *Jorjoliani T*; *Gogua M*.) were responsible for physical measurement and questionnaire filling.
- Nurses (*Mzinarashvili G*; *Jafarashvili N*; *Bolokadze L*; *Magradze N*; *Markozashvili L*) to draw the blood sample prepare and deliver the sample to the assigned laboratory:

Data management staff (Nodia N; Liluashvili K; Barbakadze V) provided data checking, data entering, data cleaning and statistical analysis of the entered data.

# Laboratory analysis staff

The lab analyses were performing at the Union of Laboratory Diagnostic at the National Centre of Therapy. This laboratory (*Kupatadze E; Lomidze G; Sebiskveradze M;* 

*ZurikaSvili* **T**) participates in the many international surveys and provides procedures of external and internal quality control.

<u>Report writing staff</u> (*Barbakadze V; Liluashvili K; Trapaidze D; Tataradze R*) was responsible for the final report writing.

# 12. RESULTS

In the chapter it is shown population indicators of major chronic disease risk factors which can be measured through risk factor survey and some indicators that are related to prevention or treatments of chronic diseases. There are description of results according the questionnaire items, detailed definitions of variables and data for the indicators as well as the rules for deriving the indicators from the data.

These items are closely related to the proposal for a comprehensive list of health indicators that has already been prepared by European Community Health Indicators (ECHI) and to the European Health Risk Monitoring (EHRM) project.

The European Union has launched a Programme of Community Action on Health Monitoring, with its objective to contribute to the establishment of a community health monitoring system which makes it possible to: (a) measure health status, trends and determinants throughout the community; (b) facilitate the planning, monitoring and evaluation of community programmes and action; and (c) provide member states with appropriate health information for comparisons and support.

The European Health Risk Monitoring (EHRM) project aims to contribute to the Programme of Community Action on Health Monitoring by planning indicators and measures for coordinated, standardized national population risk factor surveys. Such surveys will gather information on major chronic disease risk factors, related behaviours, and determinants, in order to serve and evaluate disease prevention and health promotion efforts in individual countries and on the European level.

The indicators have been classified into two categories, primary and secondary.

<u>**Primary indicators**</u> are those that should be available from every risk factor survey. They can be characterized as being:

- predictive for one or more major chronic diseases,
- modifiable,
- measurable in populations, and
- relevant to the age range considered.

<u>Secondary indicators</u> should be considered as optional for risk factor surveys. They are considered useful but, compared with the primary indicators, their:

- measurement or standardization may be more difficult than for the primary indicators, or
- impact on risk may be less well understood, and/or
- modifiability may be uncertain.

# **1. GENERAL INFORMATION**

A total of 342 clusters were studied in Tbilisi demonstration area – Didube-Chugureti district. A total of 2472 participated in the study. The results showed a response rate 72%. The survey implementation started on the 20th April, and continued through 29 June, 2007. In average one respondent's study took 23 min. Studies of each cluster lasted for 3-4 hours on average. The survey implementation lasted for 70 days.

# 2. SOCIO DEMOGRAPHIC CHARACTERISTICS

#### 2.1. Age and gender

- There were studied 2472 persons of the age 25-65 years, including 1260 women and 1212 men, the proportion of female was a bit higher than male (51.0% Vs 49.0% respectively).
- 81.0% of male and 74.4% of female are married; 8.3% of female and only 0.4% of male is widow. This was mainly attributed to the high proportion of widows among female in the age group 55-65.

See ANNEX 1

#### 2.2. Education

• Most of the participants had high literacy level with mean years of education of 15. There was no evident gender variation in the years of education. Also there was no difference between age groups.

See ANNEX 1

# 2.3. Employment

- More than half of the sample was non-active 55.5% (unemployed -35.4%, retired 7.6% and housewives – 12.5%). This was mainly attributed to the high proportion of the unemployed or the retired among both sexes, and the high proportion of the housewives among female.
- Unemployment is measured according to the definition that considers a person unemployed if he has not worked for one hour or more during the week preceding the interview. Unemployment is high in all age group.
- 32.4% are doing office or intellectual work, 11.0% work in industry (mostly males 18.2%) and 0.8% is students.

# 3. HEALTH STATUS

- Absolute majority of respondents (91.4%) have not attended any health related actions during the last 12 months.
- Majority of survey participants rarely or never got any health information from leaflets, TV, radio, newspapers, magazines or lectures during the last year.
- 72.6% of respondents haven't had any comprehensive health examination during last 12 months.
- 64.2% of respondents had measured their blood pressure; 8.9% had measured serum cholesterol and 15.9% glucose levels during previous 12 months.
- The majority of survey participants weren't advised about healthy lifestyle choices (smoking cessation, weight loss, less salt and fat consumption, increase physical activity, less alcohol intake) by family members, friends, colleagues or health personnel.
- Only 12.5% of respondents (19.1% male and 6.1% female) were advised to stop smoking by doctor; 13.5% (14.5% male and 12.5% female) were advised to lose weight; 14% (14.9% male and 13% female) to decrease fat consumption; 14.2% (14.8% male and 13.5% female) to decrease salt consumption; 9.9% (9.8% male and 9.9% female) to increase physical activity; 3.9% (7.8% male and 0.1% female) to drink less during the last year. The highest percentages were noticed in the 45-54 and 55-65 age groups.
- 11.5% (16.5% male and 11.5% female) of survey participants had attempted to stop smoking, 18% (12% male and 23.7% female) to lose weight; 16.5% (11% male and 21.8% female) to decrease fat consumption; 13.8% (9.7% male and 17.7% female) to decrease salt consumption; 8.6% (7.6% male and 9.6% female) to increase physical activity; 3% (6% male and no female) to decrease alcohol consumption during the last year.
- 4.6% of respondents (7.3% male and 2% female) managed to quit smoking; 11.7% (8.1% male and 15.2% female) managed to lose weight; 13.3% (9% male and 17.5% female) to decrease fat consumption; 10.8% (7.7% male and 13.8% female) to decrease salt consumption; 5.9% (6% male and 5.9% female) to increase physical activity; 2.4% (5% male and no female) to decrease alcohol consumption during the last 12 months.

See ANNEX 2

# **BEHAVIORAL RISK FACTORS**

#### 4. TOBACCO USE

#### **Definitions**

People can be classified as smokers or non-smokers; and these two main categories can be divided into number of sub-categories.

- A **smoker** is a person who, at the time of the survey, smokes any tobacco product either daily or occasionally. I.e. smokers can be either daily or occasional smokers.
- A **daily smoker** is a person, who smokes any tobacco product at least once a day (except that people who smoke every day, but not on days of religious fasting, are still classified as daily smokers).
- An occasional smoker is a person, who smokes, but not every day.
- A **non-smoker** is a person who, at the time of the survey, does not smoke at all. Non-smokers can be ex-smokers, never-smokers or ex-occasional smokers.
- An **ex-smoker** is a person who was formerly a daily smoker but currently does not smoke at all.
- A **never-smoker** is a person who either has never smoked at all or has never been a daily smoker and has smoked less than 100 cigarettes (or the equivalent amount of tobacco) in his/her lifetime.
- An ever daily smoker is a person who has smoked daily at least 1 year in his/her lifetime.

Intensity of cigarette smoking per day is the average daily number of cigarettes smoked by ever smokers.

Proportion of daily smokers **advised by health professionals to quit smoking** (Numerator: the number of daily smokers who, during the past 12 months, have been advised by a health professional to stop smoking. Denominator: number of daily smokers).

#### Definition of variables in data:

SMK1 Have you ever smoked daily (=almost every day for at least one year)?

- 1 = yes
- 2 = no
- 3 = uncertain
- 9 = insufficient data
- SMK2 Do you smoke now?
  - 1 = yes, daily
  - 2 = yes, occasionally
  - 3 = not at all
  - 9 = insufficient data
- SMK3 When did you stop daily smoking?
  - 1 = today or yesterday
  - 2 = 2 days 6 days ago
  - 3 = 1 week less than 1 month ago
  - 4 = 1 month less than 1 year ago
  - 5 = 1 5 years ago
  - 6 = more than 5 years ago
  - 9 = insufficient data

What kind of tobacco products do you usually smoke?

- SMK4a Manufactured cigarettes (1 = yes, 2 = no, 9 = insufficient data)
- SMK4b Self-rolled cigarettes (1 = yes, 2 = no, 9 = insufficient data)
- SMK4c Pipe (1 = yes, 2 = no, 9 = insufficient data)
- SMK4d Cigars (1 = yes, 2 = no, 9 = insufficient data)
- SMK5 Have you been advised by health professional to stop smoking during the last year (12 months)? 1 = yes
  - 2 = no
  - 3 = I have not smoked during the past 12 months
  - 9 = insufficient data

#### Description of data according the questionnaire

- 52.3% of respondents have smoked daily at least 1 year in a lifetime. Positive reply to this question was more frequent among males (77.9% vs. 27.8%).
- Results showed that the mean years of smoking among ever daily smokers were 19 years. Male reported longer duration than female (21 yrs Vs 15 yrs).
- Nearly three fifth of the ever smokers (60.1%) smoked 20 cigarettes or more per day, that could be categorized as heavy smokers. Heavy smoking was evident mainly among male. Mean number of cigarettes per day was 19 (21-among males and 13-among females).
- The prevalence of current smoking was 42.2% (40.7% are daily smokers and 1.5% occasionally smokers).
- The proportion of smoking among male was nearly three times higher than female (62% Vs 23% respectively). Regarding age specific smoking rate, it is noticed that smoking is less prevalent among old aged years (≥55) males and females.
- Nearly all of current daily smokers used manufactured cigarettes (99.8%). Only 2 man smoked daily pipes and none of the respondents smokes self-rolled cigarettes.
- Only 28.4% of daily smokers were advised to stop smoking by their physician during the last 12 months.
- 75.6% of ever daily smokers are very concerned about harmful consequences that smoking can have on their health (mostly females – 85.4% Vs 71.9% respectively); 14.8% are somewhat concerned; 6.5% are not much concerned and 1.0% is not at all concerned.
- It is alarming that 21.3% of ever daily smokers do not wish to stop smoking and 24.0% are not sure; just 33.8% would like to stop smoking.

- 39.1% of ever daily smokers have never tried to stop smoking and these are mostly man (40.3% vs. 36.0%). 4.9% have tried to stop smoking during the last month; 8.5% 1-6 months ago; 11.1% 6-12 months ago; 35.8% more than a year ago.
- Among respondents who used to smoke 21.9% (22.2% male and 20.8% female) quited smoking.

See ANNEX 3

# **5. ALCOHOL CONSUMPTION**

#### **Definition of variables in data:**

ALC1	<ul> <li>How many glasses (regular restaurant portions) or bottles of the following drinks have you consumed during the last week (7 days)?</li> <li>1. Bottle (=500 ml) of medium strong or strong beer</li> <li>2. Portions (=50 ml) of strong alcohol, spirits</li> <li>3. Glasses (=200 ml) of wine or equivalent</li> <li>4. Nothing like</li> <li>9 = insufficient data</li> </ul>
ALC2	How often do you drink beer? 1 = Never 2 = a few times a year 3 = 2-3 times a month 4 = once a week 5 = 2-3 times a week 6 = on weekends 7 = daily 9 = insufficient data
ALC3	How often do you drink strong spirits? 1 = Never 2 = a few times a year 3 = 2-3 times a month 4 = once a week 5 = 2-3 times a week 6 = on weekends 7 = daily
ALC4	<ul> <li>9 = insufficient data</li> <li>How often do you drink strong Wine?</li> <li>1 = Never</li> <li>2 = a few times a year</li> <li>3 = 2-3 times a month</li> <li>4 = once a week</li> <li>5 = 2-3 times a week</li> <li>6 = on weekends</li> <li>7 = daily</li> <li>9 = insufficient data</li> </ul>
ALC5	How often do you drink six glasses/bottles or more alcohol at once? 1 = never 2 = less than once a month 3 = once a month 4 = once a week 5 = daily or almost daily

9 = insufficient data

# **Deriving indicators**

#### Primary indicators

Average amount of alcohol (units) consumed during the last week: respondents with ALC1 = either 1, 2 or 3 Numerator: Denominator: all respondents with ALC1  $\neq$  9 Amount of beer (units) consumed during the last week: respondents with ALC1 = 1Numerator: Denominator: all respondents with ALC1  $\neq$  9 Amount of wine (units) consumed during the last week: respondents with ALC1 = 2Numerator: Denominator: all respondents with ALC1  $\neq$  9 Amount of strong alcohol (units) consumed during the last week: respondents with ALC1 = 3Numerator: Denominator: all respondents with ALC1  $\neq$  9 Prevalence of respondents has not drunk any alcohol (beer, wine and/or strong alcohol) during the last week: Numerator: respondents with ALC1 = 4Denominator: all respondents with ALC1  $\neq$  9 Prevalence of respondents has consumed 7-14 units of alcohol (beer, wine and/or strong alcohol) during the last week: Numerator: respondents with ALC1 = either 1, 2 or 3 Denominator: all respondents with ALC1  $\neq$  9

Prevalence of respondents has consumed more than 14 units (beer, wine and/or strong alcohol) during the last week:

Numerator: respondents with ALC1 = 1 and 2 and 3

Denominator: all respondents with ALC1  $\neq$  9

Prevalence of respondents who has never drunk six glasses or bottles of alcohol, or more, at once

Numerator: respondents with ALC5 = 1

Denominator: all respondents with ALC5  $\neq$  9

Prevalence of respondents who has rarely (once a month or less) drunk six glasses or bottles of alcohol, or more, at once

Numerator: respondents with ALC5 = 2 and 3

Denominator: all respondents with ALC5  $\neq$  9

Prevalence of respondents who has regularly (once a week) drunk six glasses or bottles of alcohol, or more, at once

Numerator: respondents with ALC5 = 4

Denominator: all respondents with ALC5  $\neq$  9

Prevalence of respondents who has daily drink six glasses or bottles of alcohol, or more, at once

Numerator: respondents with ALC5 = 5

Denominator: all respondents with ALC5  $\neq$  9

# Secondary indicators

Prevalence of responders who has never drink beer

Numerator: respondents with ALC2 = 1

Denominator: all respondents with ALC2  $\neq$  9

Prevalence of responders who has rarely drink beer

Numerator: respondents with ALC2 = 2 and 3 Denominator: all respondents with ALC2  $\neq$  9

Prevalence of responders who has regularly drink beer Numerator: respondents with ALC2 = 4 and 5 Denominator: all respondents with ALC2  $\neq$  9 Prevalence of responders who has drink beer on weekends Numerator: respondents with ALC2 = 6Denominator: all respondents with ALC2  $\neq$  9 Prevalence of responders who has daily drink beer respondents with ALC2 = 7Numerator: Denominator: all respondents with ALC2  $\neq$  9 Prevalence of respondents who has never drink strong spirits respondents with ALC3 = 1Numerator: Denominator: all respondents with ALC3  $\neq$  9 Prevalence of respondents who has rarely drink strong spirits Numerator: respondents with ALC3 = 2 and 3 Denominator: all respondents with ALC3  $\neq$  9 Prevalence of respondents who has regularly drink strong spirits Numerator: respondents with ALC3 = 4 and 5 Denominator: all respondents with ALC3  $\neq$  9 Prevalence of respondents who has drink strong spirits on weekends Numerator: respondents with ALC3 = 6Denominator: all respondents with ALC3  $\neq$  9 Prevalence of respondents who has daily drink strong spirits respondents with ALC2 = 7Numerator: Denominator: all respondents with ALC2  $\neq$  9 Prevalence of respondents who has never drink wine respondents with ALC4 = 1Numerator: Denominator: all respondents with ALC4  $\neq$  9 Prevalence of respondents who has rarely drink wine Numerator: respondents with ALC4 = 2 and 3 Denominator: all respondents with ALC4  $\neq$  9 Prevalence of respondents who has regularly drink wine Numerator: respondents with ALC4 = 4 and 5 Denominator: all respondents with ALC4  $\neq$  9 Prevalence of respondents who has drink wine on weekends Numerator: respondents with ALC4 = 6Denominator: all respondents with ALC4  $\neq$  9 Prevalence of respondents who has daily drink wine Numerator: respondents with ALC4 = 7Denominator: all respondents with ALC4  $\neq$  9

#### Description of data according the questionnaire

- During previous 7 days respondents consumed 0.6 glasses of strong spirits, 1.5 glasses of wine and 0.8 bottles of bear, in average. Alcohol consumption was much higher among male population.
- 36.7% of respondents have never had strong spirits and majority of them are women. 36.9% drink strong spirits a few times a year; 19.2% 2-3 times a month (mostly men);

3.8% once a week, 2.3% 2-3 times a week and 0,6% drink strong spirits daily (in this group are only males).

- 20.2% (mostly women) have never had wine. 44.7% drink wine a few times a year, and there are relatively more women in this group. 24.4% drink wine 2-3 times a month; 5.6% weekly and 3.2% 2-3 times a week. 1.1% (26 respondents) drink wine daily and there are only 1 female in this group.
- 34.7% have never had beer and their absolute majority are women. Respondents drink beer mostly a few times a year 29.7%; 17.6% drink beer 2-3 times a month; 7.0% weekly and 5.4% 2-3 times a week. 2.6% drink beer daily. Among those who drink beer frequently, majority are males.
- 55.8% have never had 6 or more glasses at once. There are significantly more females in this group than males. 1.1% (28 respondents) consume this amount of alcohol daily or almost daily. There are only one female in this last group.

See ANNEX 4

# **6. ANTHROPOMETRY MEASUREMENTS**

#### **Definitions**

Obesity can be measured using weight and height and is usually assessed by body mass index (BMI), i.e. weight in kilograms divided by square of height in meters.

BMI = Body weight (Kg)/Height (M<sup>2</sup>).

The WHO cut-off points for BMI were adopted to categorize the respondents as the:

Category of BMI	BMI
Thin	< 18.5
Normal range	18.5-24.9
Grade 1 overweight	25-29.9
Grade 2 overweight	30-39.9
Grade 3 overweight	<u>&gt;</u> 40

The waist and hip circumference measurements are reported using waist-to-hip ratio, and means of waist and hip circumference measurements. Waist-to-hip ratio (WHR) as well as waist circumference alone can be used as an indicator for abdominal obesity.

The WHO standards for measurements of waist circumference were adopted: Optimal waist circumference - Female 88 cm, Male 102 cm.

According to the WHO standards, the cut off points for waist/ hip ratio are:

	Waist to	Hip Ratio Chart
Male	Female	Health Risk Based Solely on WHR
0.95 or below	0.80 or below	Low Risk
0.96 to 1.0	0.81 to 0.85	Moderate Risk
1.0+	0.85+	High Risk

#### **Definition of variables in data:**

WEIGHT	measured weight (kg) 999 if insufficient data
HEIGHT	measured height (cm) 999 if insufficient data
WAIST	measured waist circumference (cm) 999 if insufficient data
HIP	measured hip circumference (cm) 999 if insufficient data

# Additional derived variables used in calculations of indicators:

BMI	BMI=WEIGHT/(HEIGHT*HEIGHT), if $WEIGHT<999$ and $HEIGHT<999$ $BMI=999,$ if $WEIGHT=999$ or $HEIGHT=999$
WHR	WHR = WAIST/HIP, if WAIST < 999 and HIP < 999 WHR # 999, if WAIST $\neq$ 999 or HIP $\neq$ 999

# Deriving indicators

# **Primary indicators**

Prevalence of obesity:

Numerator: respondents with  $BMI \ge 30$ 

Denominator: all respondents with BMI < 999

#### **Secondary indicators**

Prevalence of categories of BMI (for example if category is grade 1 overweight: 25-30):

Numerator: respondents with  $25 \le BMI < 30$ 

Denominator: all respondents with BMI < 999

Prevalence of waist/hip ratio  $\geq$  0.95 for men and  $\geq$  0.80 for women:

Numerator: male respondents with WHR  $\geq$  0.95 and female respondents with WHR  $\geq$  0.80

Denominator: all respondents with WHR < 999

# Description of data according the questionnaire

• The mean height in the study population was 170.6 cm (with a maximum of 200 cm and a minimum of 145 cm). Male were 13 cm taller than female (177.3 cm and 164.3 cm respectively).

- The mean body weight of the whole study sample was 80.4 Kg (with a maximum of 163 Kg and a minimum of 41 Kg). Similarly, male had higher figures in body weight than female (86.9 kg Vs 74.3 Kg respectively). In males the body weight peaked at the age group of 45-54 years, but in females at the age group 55-65.
- The mean BMI of the whole sample as well as for male and female was 27.6.
- Only 34.0% of surveyed persons had normal weight (BMI=18.5-24.9). 34.9% of respondents were overweight (BMI=25-29.9). The rate of overweight among male was higher than female (40.2% Vs 34.9%). Nearly one third of the respondents were obese (29.4%). Obesity was higher among female (31.6% Vs 27.1%). 1.7% (0.8% male and 2.6% female) of respondents were thin (BMI<18.5) and 2.6% (1.4% male and 3.7% female) were categorized as obese grade 3.</li>
- Waist circumference measurements for female exceeded the optimal data (90.2 cm), whereas the measurements for male were within the acceptable standard (99.3 cm). Results showed that the waist circumference measurements for 38.8% of male and 54.4% of female exceeded the optimal data.
- The mean waist to hip ratio for male was within the standard measurement (0.94), but for female it exceeded the optimal data (0.83).

See ANNEX 5

# 7. PHYSICAL ACTIVITY

Physical activity was assessed by asking the respondents about the time spent doing different types of activities.

The intensity of physical activity is categorized into:

1 **Vigorous-intensity activity:** defined as the activity, which causes large increases in breathing or heart rate, and sweating for at least 10 minutes continuously.

2 **Moderate-intensity activities:** defined as the activity, which causes small increase in breathing or heart rate for at least 10 minutes continuously.

*3 Low-intensity physical activities:* the remaining respondents who were not included in the previous categories were considered belonging to this category.

The frequency of performing different types of physical activity in a typical week was inquired, and the time spent doing these activities during the day was also assessed. The domains where physical activity was assessed included: work, travel to and from places (transportation), and recreation.

# Description of data according the questionnaire

- 92.6% of respondents have possibilities to exercise.
- 93.9% of survey participants (91% male and 96.7% female) haven't practiced physical activities during the last 7 days.
- 55.1 % of respondents (59.1% male and 50.5% female) haven't done any moderate physical activities.
- 8.5% of surveyed haven't practiced any moderate physical activities, but 60.7% exercised moderately 6-7 days a week.
- 66.7% have spent more than an hour doing low-intensity physical activities.
- 43.5% of respondents (49.1% male and 38.2% female) have spent sitting more than 6 hours daily.
- 85.6% of surveyed do any of leisure time physical activity (at least 30 min.) leading to shortness of breath or perspiration only a few times a year or less frequently.

See ANNEX 6

# **8. FOOD CONSUMPPTION**

# Description of data according the questionnaire

- The majority of the respondents used vegetable oil (92.4%). Only 3.2% used butter or product consisting mainly of butter. Small percentage of the respondents used margarine (0.7%) and lard or other animal fat (0.2%).
- 78.1% of respondents (82% male and 74.3% female) eat breakfast, percentages increase with age.
- 65.3% of surveyed prepare food at home daily.
- 62.4% of respondents do not drink milk, 23.99% drink whole milk.
- 56% of surveyed never add salt to their meals; 31.6% when food isn't salty enough, but 11.7% add salt before testing. 85.6% usually use iodized salt.
- The majority of respondents frequently consume potato and cheese. 39.52% never used rice/macaroni during the last week and 45.8% use 1-2 times. 51.25% never consumed cereals and 32.2% use them just 1-2 times a week.

- About 40% of questioned have not consumed chicken and more than a half have eaten just once during last 7 days; majority have never or just 1-2 times a week consumed fish; regarding meat and meat products 22.78% & 43% never, 49.6% & 38.7% 1-2 times a week respectively; 27.6% haven't eaten eggs, more than half of surveyed have consumed 1-2 times a week.
- Only 31.5% of respondents eat fresh vegetables almost everyday and nearly 10% never consumed during the last week.
- 37.46% of surveyed never and 36.6% just 1-2 times a week eats fruit; almost 80% never consumed fruit as compote or in different technique.
- 34.9% ate sweet pastries and 27.2% ate candies/chocolates 3-5 times during the last week, about one third of respondents consumed different kinds of sweets 1-2 times a week; 22.3% never consumed sweet pastries and 32.9% never ate candies/chocolates during last 7 days.
- 31.23% of respondents have never drunk, 36.5% 1-2 times and 23.1% 3-5 times have consumed soft drinks.

See ANNEX 7

# 9. LIPIDS MEASUREMENT

Venous blood samples were taken from 1109 persons to measure glucose and total cholesterol.

The assessment of blood lipid levels is an important component of risk factor monitoring. The processes involved in the formation and progression - sometime even regression - of atherosclerotic lesions are complex and still not completely known, but ongoing research is constantly refining our understanding. Nevertheless, is generally accepted that elevated blood lipids play an important role in the genesis of these lesions; Clinical trials with the so called "statin" group of drugs have shown that reducing blood lipid levels decreases the risk for coronary events.

# **Definitions**

Elevated serum total cholesterol: concentration is 5.0 mmol/l (190 mg/dl) or higher. The definition does not depend on the person's treatment status.

In the recommendations for initiating lipid lowering drug treatment, the cut-points for cholesterol depend on the other risk factors, and in particular on whether the person already has coronary heart disease.

For prevalence indicators of total cholesterol the thresholds 5.0 mmol/L (190 mg/dl) and 4.5 mmol/L (175 mg/dl) are used.

Categories	Total cholesterol
Desirable	< 190 mg/d (5.0 mmol/l)
Desirable for patients with ischemic heart disease and diabetes mellitus	< 175 mg/dl (4.5 mmol/l)
Hypercholesterolemia	$\geq$ 190 mg/dl (5.0 mmol/l)

# Definition of variables in data:

CHOL	cholesterol concentration 999 = insufficient data
HCL1	When was your blood cholesterol last measured? 1 = within the past 12 months 2 = 1-5 years ago 3 = not within the past 5 years 9 = insufficient data
HCL2	Have you been told by a health professional that you have raised (elevated) blood cholesterol during the last year (12 months)? 1 = yes 2 = no 3 = uncertain 9 = insufficient data

#### Deriving indicators

#### **Primary indicators**

- Mean and standard deviation of serum total cholesterol (mmol/l)
- Prevalence of elevated serum total cholesterol
- Awareness of elevated serum cholesterol or hypercholesterolemia

 $_{\odot}$  Numerator: number of those who reported that they have been told by a health professional in the past 12 months that they have elevated cholesterol or hypercholesterolemia.

 $_{\odot}$  Denominator: number of those who were considered having elevated cholesterol in item "prevalence of elevated serum total cholesterol".

The indicator is relevant for the assessment of the health care system.

- Proportion of the population with cholesterol measurement in the past 5 years

   Numerator: number of those who reported that their cholesterol was measured by a
   health professional in the past 5 years.
  - Denominator: number of all survey respondents.

#### Secondary indicators

- Distribution curves of serum total cholesterol.
- Proportion of the population with cholesterol measurement in the past 12 months

   Numerator: number of those who reported that their cholesterol was measured by a health professional in the past 12 months.
  - Denominator: number of all survey respondents.
- Prevalence of elevated serum total cholesterol for high risk respondents with ischemic heart disease or diabetes mellitus (cut-point is 175 mg/dl (4.5 mmol/l):

# Primary indicators

• Mean and standard deviation of total cholesterol concentration

Prevalence of elevated serum total cholesterol:

Numerator: respondents with CHOL  $\geq$  190 mg/dl (5.0 mmol/l)

Denominator: all respondents with CHOL < 999

Awareness of elevated serum cholesterol or hypercholesterolemia:

Numerator: respondents with HCL2 = 1

Denominator: all respondents with HCL2  $\neq$  9 and CHOL  $\geq$  190 mg/dl (5.0 mmol/l)

Proportion of population with cholesterol measurement in the past 5 years:

Numerator: respondents with HCL1 either 1 or 2

Denominator: all respondents with HCL1≠9

# Secondary indicators

Prevalence of elevated serum total cholesterol for high risk respondents with ischemic heart disease or diabetes mellitus (cut-point is 175 mg/dl (4.5 mmol/l) :

Numerator: respondents with CHOL  $\geq$  175 mg/dl (4.5 mmol/l)

Denominator: all respondents with CHOL < 999

Proportion of the population with cholesterol measurement in the past year:

Numerator: respondents with HCL1 = 1

Denominator: all respondents with HCL1  $\neq$  9

# Description of data according the questionnaire

- 87% of respondents have never measured cholesterol level.
- 72.1% of respondents (70.7% male and 75.5% female) who agreed to measure their cholesterol level have hypercholesterolemia; 81.2% have elevated serum total cholesterol for high risk respondents with ischemic heart disease or diabetes mellitus. These high percentages can be explained that people who agreed to determine their blood cholesterol were somewhat concerned about their health.
- 7.7% of male respondents and 5.9% of female respondents were aware about hypercholesterolemia.

See ANNEX 8

# 10. BLOOD GLUCOSE MEASUREMENT

Glucose is the major carbohydrate present in blood. Glucose derived from dietary sources is either oxidized to provide energy or converted to glycogen or fatty acids for storage in the liver and other tissues. Blood glucose level is chiefly controlled by the hormones insulin and glucagon, but other hormones play also a role. A defect in insulin secretion, insulin action, or both results initially in impaired glucose tolerance (IGT) and causes hyperglycemias. Eventually, most cases of IGT will progress toward overt diabetes mellitus, a condition where the blood glucose level exceeds the reabsorbtion threshold of the kidneys and glucose is excreted in the urine. Hyperglycaemia causes microvascular and macrovascular damage in several organs and is a powerful risk predictor for cardiovascular disease morbidity and mortality.

# **Definitions**

The cut of points of glucose levels in the fasting plasma glucose (FPG) tests are the following:

Diagnosis	FPG
normal fasting glucose	< 110 mg/dl (6.1 mmol/l)
impaired fasting glucose (IFG)	≥ 110 (6.1 mmol/l) and < 126 mg/dl (7.0 mmol/l)
provisional diagnosis of diabetes (needs to be confirmed)	≥ 126 mg/dl (7.0 mmol/l)

#### **Definition of variables in data:**

GLUC	Fasting plasma glucose 999 if insufficient data
DIAB1	Have you ever been told by a doctor that you have diabetes? 1 = yes 2 = no 3 = uncertain 9 = insufficient data
DIAB3	When was your blood glucose last measured? 1 = within the past 12 months 2 = 1-3 years ago 3 = not within the past 3 years 4 = never 9 = insufficient data
DIAB4	Have you been told by a health professional that you have raised (elevated) blood glucose? 1 = yes 2 = no 3 = uncertain 9 = insufficient data

# **Primary indicators**

- Mean and standard deviation of fasting plasma glucose concentration.
- Prevalence of impaired fasting glycemia.
  - Numerator: number of those whose fasting plasma glucose concentration was at least 6.1 mmol/l (110 mg/dl) but less than 7.0 mmol/l (126 mg/dl).
- Denominator: number of all survey respondents.
- Prevalence of provisional diagnosis of diabetes

   Numerator: number of those whose fasting plasma glucose concentration was 7.0
  - mmol/l (126 mg/dl) or more.
  - Denominator: number of all survey respondents.
- Awareness of elevated serum glucose:
  - Numerator: number of those who reported that they have been told that they have elevated glucose or hyperglycemia.
  - Denominator: number of those who were considered having elevated glucose GLU
     110 mg/dl (6.1 mmol/l)

The indicator is relevant for the assessment of the health care system.

• Proportion of population with glucose measurement in the past 12 month:

 $_{\odot}$  Numerator: number of those who reported that their glucose was measured in the past 12 month.

• Denominator: number of all survey respondents.

# Secondary indicators

• Proportion of population with glucose measurement in the past 3 years:

 $_{\odot}$  Numerator: number of those who reported that their glucose was measured in the past 3 years.

• Denominator: number of all survey respondents.

# Deriving indicators

# Primary indicators

Prevalence of impaired fasting glycemia

Numerator: respondents with  $6.1 \leq GLUC < 7.0$ 

Denominator: all respondents with GLUC ≠999

Prevalence of provisional diagnosis of diabetes:

Numerator: respondents with GLUC  $\geq$  7.0

Denominator: all respondents with GLUC ≠999

Awareness of elevated serum glucose:

Numerator: respondents with DIAB4 = 1

Denominator: all respondents with DIAB4  $\neq$  9 and GLU  $\geq$  110 mg/dl (6.1 mmol/l)

Proportion of population with glucose measurement in the past 12 month:

Numerator: respondents with DIAB3 = 1

Denominator: all respondents with DIAB3  $\neq$  9

# Secondary indicators

Proportion of population with glucose measurement in the past 3 years:

Numerator: respondents with DIAB3 = either 1 or 2

Denominator: all respondents with DIAB3  $\neq$  9

# Description of data according the questionnaire

- Only 17.8% of respondents have measured their glucose level during the last 12 months.
- 73.8% of survey participants (70.3% male and 75.9% female) who agreed to measure their blood glucose level have normal fasting glucose; 14.2% (16.1% male and 12.9% female) have their fasting glucose impaired and 26.2% (29.7% male and 24.1% female) have provisional diagnoses of diabetes (needs to be confirmed). Again, these high percentages can be explained that people who agreed to determine their glucose level were somewhat concerned about their health.
- 19.7% of male respondents and 17.3% of female respondents were aware about hyperglycemia.

# 11. BLOOD PRESSURE

There are several factors which, singly or in combination, can invalidate the comparability of blood pressure measurements between surveys. Therefore, it was important that these factors were well standardized, and that there was careful training of personnel and quality control in the survey. Blood pressure was measured adequately and relatively simply.

Self-reports are unlikely to yield valid estimates of true hypertension, but self-reports of hypertension, awareness and treatment are important prerequisites for controlling of hypertension. Questionnaires are the preferred mode of obtaining information about the awareness and treatment of hypertension.

Agreement between data about awareness and treatment of hypertension collected using questionnaires and data obtained from the medical record reviews is found to be good. Over 80% of responses in the questionnaire agree with medical records (20, 21,22).

It is also important to obtain information on the distribution of systolic and diastolic blood pressure in the population (and not only whether they are categorized as hypertensives or not according to health providers' definitions).

The room temperature varied between 15°C and 38°C and the mean was 23°C.

# **Definitions**

#### 1. Prevalence of actual and potential hypertensives

- Numerator: number of those whose systolic blood pressure was at least 140 mmHg or diastolic blood pressure was at least 90 mmHg or who reported that they are currently taking medication to lower their blood pressure.
- Denominator: number of all survey respondents.

The question for determining the treatment is: "Are you currently (last 2 weeks) taking medications to lower your blood pressure?"

This indicator is a proxy for the primary item of interest, namely the prevalence of hypertension, whether diagnosed or undiagnosed. Undiagnosed hypertension can not be identified on the basis of survey blood pressure measurements alone, because established hypertension requires a sustained elevation of blood pressure which is usually ascertained by several measurements at different occasions. We define the group of potential hypertensives as persons with survey blood pressure above the value used in the current definition of hypertension by the World Health Organization and the International Society of Hypertension. Typically, around 80% of these potential hypertensives would become diagnosed as hypertensives and the potential hypertensives will overestimate the prevalence of hypertension but it represents a practical compromise and yields a reasonable estimate of the prevalence of hypertension in the population.

# 2. Prevalence of current antihypertensive drug treatment among actual and potential hypertensives

- Numerator: number of those who reported that they are currently taking medication to lower their blood pressure.
- Denominator: number of those who were identified as actual or potential hypertensives as defined above.

# 3. Prevalence of antihypertensive drug treatment in the population

- Numerator: number of those who reported that they are currently taking medication to lower their blood pressure.
- Denominator: number of all survey respondents.

- 4. Prevalence of use of antihypertensive drugs among actual and potential hypertensives
  - Numerator: number of those who reported that they are ever took medication to lower their blood pressure.
  - Denominator: number of those who were identified as actual or potential hypertensives as defined above.

# 5. Prevalence of use of antihypertensive drugs in the population

- Numerator: number of those who reported that they are ever took medication to lower their blood pressure.
- Denominator: number of all survey respondents.

# 6. Effectiveness of antihypertensive drug treatment (proportion under control for hypertension)

- Numerator: size of the subset of the denominator whose systolic blood pressure is below 140 mmHg and diastolic below 90 mmHg.
- Denominator: number of those who are taking medication to lower their blood pressure.

# 7. Awareness of hypertension

- Numerator: number of those who reported that they have been told by a health professional to have elevated blood pressure or hypertension among the actual or potential hypertensives.
- Denominator: number of those who were identified as actual or potential hypertensives as defined above.

# 8. Prevalence of self-reported history of hypertension

- Numerator: number of those who reported that they have been told by a health professional to have elevated blood pressure or hypertension.
- Denominator: Denominator: number of all survey respondents.

# 9. Proportion of population with blood pressure measurement in the past year:

- Numerator: number of those who reported that their blood pressure was measured in the past 12 months.
- Denominator: number of all survey respondents.

# 10. Proportion of the population with blood pressure measurement in the past 5 years

- Numerator: number of those who reported that their blood pressure was measured in the past 5 years.
- Denominator: number of all survey respondents.

# 11. Proportion of population with blood pressure measurement

- Numerator: number of those who reported that their blood pressure was measured.
- Denominator: number of all survey respondents.

# 12. Proportion of population who had never measured before blood pressure:

- Numerator: number of those who reported that their blood pressure had never been measured.
- Denominator: number of all survey respondents.

# 13. Mean and standard deviation of systolic blood pressure (mmHg)

• These are calculated from the mean of the first, second and third of three serial measurements. If there are only two measurements, these are calculated from the mean of the first and second measurements.

# 14. Mean and standard deviation of diastolic blood pressure (mmHg)

• These are calculated from the mean of the first, second and third of three serial measurements. If there are only two measurements, these are calculated from the mean of the first and second measurements.

# 15. Prevalence of elevated systolic blood pressure

• Systolic hypertension is defined as systolic blood pressure 140 mmHg or more. Systolic blood pressure, regardless of the level of diastolic blood pressure, has been recognized as an important predictor of vascular events, particularly in the elderly.

# 16. Prevalence of elevated diastolic blood pressure

- Diastolic hypertension is defined as diastolic blood pressure 90 mmHg or more.
- 17. Prevalence of Isolated systolic hypertension:
  - Isolated systolic hypertension is defined as systolic blood pressure 140 mmHg or more, but diastolic blood pressure below 90 mmHg.

# 18. Mean and standard deviation of pulse rate (beats/min).

• Pulse rate is commonly determined in connection with blood pressure measurement and its inclusion as a secondary indicator is based on epidemiological studies that have shown that heart rate is a predictor for cardiovascular disease independent of associated risk factors. A possible link between resting heart rate and cardiovascular events is physical fitness, i.e. the ability to perform aerobic activities, which is inversely proportional to resting heart rate.

# 19. Adviser of antihypertensive drug treatment in the population.

- Numerator: number of those who reported that they have been advised by doctor to take antihypertensive drug treatment.
- Denominator: number of those who reported that they have been took antihypertensive drug to lower blood pressure.

# 20. Proportion of population with own blood pressure measurement device

• Numerator: number of those who reported that they had own blood pressure measurement device.

Denominator: number of all survey respondents.

# 21. Proportion of population with blood pressure measurement skills

- Numerator: number of those who reported that their family member had skills to measure blood pressure.
- Denominator: number of all survey respondents.

# 22. Proportion of population who know what is the normal blood pressure

- Numerator: number of those who reported that their family member had skills to measure blood pressure.
- Denominator: number of all survey respondents.
- 23. Prevalence of those who have been advised by a health professional to carry out non-pharmacological treatment of hypertension among actual and potential hypertensives (advice of non-pharmacological treatment of hypertension):
  - Numerator: number of those who reported that they have been ordered by a doctor in the past 12 months to change their way of life (to reduce salt intake, to lose weight, to stop smoking, to exercise more, to restrict alcohol) in order to lower their blood pressure.
  - Denominator: number of those who were identified as actual or potential hypertensives as defined above.

# 24. Prevalence of those who have tried to carry out non-pharmacological treatment of hypertension among actual and potential hypertensives (attempt of non-pharmacological treatment of hypertension):

- Numerator: number of those who reported that they have tried in the past 12 months to change their way of life (to reduce salt intake, to lose weight, to stop smoking, to exercise more, to restrict alcohol) in order to lower their blood pressure.
- Denominator: number of those who were identified as actual or potential hypertensives as defined above.

# 25. Prevalence of those who have carried out successful non-pharmacological treatment of hypertension among actual and potential hypertensives (successful attempt of non-pharmacological treatment of hypertension):

- Numerator: number of those who reported that they have successfully changed their way of life (to reduce salt intake, to lose weight, to stop smoking, to exercise more, to restrict alcohol) in the past 12 months in order to lower their blood pressure.
- Denominator: number of those who were identified as actual or potential hypertensives as defined above.

#### **Definition of variables in data:**

HR	Heart rate
SBP1/DBP1	Systolic/diastolic blood pressure from 1st measurement; 999 if insufficient data.
SBP2/DBP2	Systolic/diastolic blood pressure from 2nd measurement; 999 if insufficient data.
SBP3/DBP3	Systolic/diastolic blood pressure from 3rd measurement; 999 if insufficient data.
HBP1	<ul> <li>When was your blood pressure last measured?</li> <li>1 = within the past 12 months;</li> <li>2 = 1-5 years ago;</li> <li>3 = not within the past 5 years (earlier);</li> <li>4 = never;</li> <li>9 = insufficient data.</li> </ul>
HBP2	Have you been told by a health professional that you have elevated blood pressure or hypertension? 1 = yes; 2 = no; 9 = insufficient data.
HBP3	Are you currently (last 2 weeks) taking medications to lower blood pressure? 1 = yes; 2 = no; 3 = uncertain; 9 = insufficient data.
HBP4	Has a doctor advised you to change your lifestyle in order to lower blood pressure during the last year? 1 = yes; 2 = no; 9 = insufficient data.
HBP5	Have you tried to change your lifestyle in order to lower blood pressure during the last 12 months? 1 = yes; 2 = no; 9 = insufficient data.
HBP6	Have you successfully changed your lifestyle in order to lower blood pressure during the last 12 months? 1 = yes; 2 = no; 9 = insufficient data.

HBP7	Have you ever taken medications to lower blood pressure? 1 = yes; 2 = no; 9 = insufficient data.
HBP8	<ul> <li>Who advised you to take antihypertensive drug?</li> <li>1 = doctor;</li> <li>2 = pharmacist;</li> <li>3 = friends, relatives, neighbors;</li> <li>4 = by itself;</li> <li>9 = insufficient data.</li> </ul>
HBP9	Have you got your own blood pressure measurement device? 1 = yes; 2 = no; 9 = insufficient data.
HBP10	Does any of your family members know how to measure blood pressure? 1 = yes; 2 = no; 9 = insufficient data.
HBP11	What is the normal blood pressure in your opinion? 1 = less than 160/90; 2 = less than 140/90; 3 = it is depend on age; 4 = when person feels good. 9 = insufficient data.

#### **Deriving indicators**

#### **Primary indicators**

#### 1. Prevalence of actual and potential hypertensives

Numerator: Respondents with MSBP>140 or MDBP>90 or HBP3=1.

Denominator: All respondents with MSBP < 999 and MDBP < 999 and HBP3 1, 2 or 3.

# 2. Prevalence of antihypertensive drug treatment among actual and potential hypertensives

Numerator: Respondents with HBP3=1.

Denominator: All respondents with MSBP>140 or MDBP>90 or HBP3=1.

# 3. Prevalence of antihypertensive drug treatment in the population

Numerator: Respondents with HBP3=1.

Denominator: All respondents with HBP3  $\neq$  9 (HBP3 1, 2 or 3).

#### 4. Awareness of hypertension

Numerator: Respondents with HBP2=1 and with  $MSBP \ge 140$  or  $MDBP \ge 90$  or HBP3=1.

Denominator: Respondents with MSBP>140 or MDBP>90 or HBP3=1.

# 5. Prevalence of self-reported history of hypertension

Numerator: Respondents with HBP2=1.

Denominator: All respondents with HBP2  $\neq$  9 (HBP2 either 1 or 2).

# 6. Proportion of the population with blood pressure measurement in the past 5 years

Numerator: Respondents with HBP1 either 1 or 2.

Denominator: All respondents with HBP1  $\neq$  9 (HBP1 1, 2, 3 or 4).

## Secondary indicators

#### 7. Prevalence of elevated systolic blood pressure:

Numerator: respondents with MSBP  $\geq$  140

Denominator: all respondents with MSBP < 999

## 8. Prevalence of elevated diastolic blood pressure:

Numerator: respondents with MDBP  $\geq$  90

Denominator: all respondents with MDBP < 999

# 9. Prevalence of Isolated systolic hypertension:

Numerator: respondents with MSBP  $\geq$  140 and MDBP < 90

Denominator: all respondents with MSBP < 999 and MDBP < 999

# 10. Effectiveness of antihypertensive drug treatment (proportion under control for hypertension):

Numerator: Respondents with HBP3=1 and MSBP<140 and MDBP<90.

Denominator: all respondents with HBP3=1

# **11. Proportion of population with blood pressure measurement in the past year:** Numerator: respondents with HBP1=1.

Denominator: All respondents with HBP1  $\neq$  9 (HBP1 1, 2, 3 or 4).

## 12. Proportion of population with blood pressure measurement:

Numerator: Respondents with HBP1 either 1 or 2 or 3.

Denominator: All respondents with HBP1  $\neq$  9 (HBP1 1, 2, 3 or 4).

# 13. Proportion of population who had never measured before blood pressure:

Numerator: Respondents with HBP1 = 4.

Denominator: All respondents with HBP1  $\neq$  9 (HBP1 1, 2, 3 or 4).

# 14. Prevalence of antihypertensive drug treatment among actual and potential hypertensives

Numerator: Respondents with HBP3=1.

Denominator: All respondents with MSBP<sub>>140</sub> or MDBP<sub>>90</sub> or HBP3=1.

# 15. Prevalence of use of antihypertensive drugs among actual and potential hypertensives

Numerator: Respondents with HBP7=1.

Denominator: All respondents with MSBP>140 or MDBP>90 or HBP3=1.

# 16. Prevalence of use of antihypertensive drugs in the population.

- Numerator: number of those who reported that they are ever took medication to lower their blood pressure.
- Denominator: number of all survey respondents.

Numerator: Respondents with HBP7=1.

Denominator: All respondents with HBP7  $\neq$  9 (HBP7 either 1 or 2).

## 17. Adviser of antihypertensive drug treatment in the population.

Numerator: Respondents with HBP8=1.

Denominator: All respondents with HBP7  $\neq$  9 (HBP7 either 1 or 2).

18. Proportion of population with own blood pressure measurement device

Numerator: Respondents with HBP9=1.

Denominator: All respondents with HBP9  $\neq$  9 (HBP9 either 1 or 2).

**19. Proportion of population with blood pressure measurement skills** 

Numerator: Respondents with HBP10=1.

Denominator: All respondents with HBP10  $\neq$ 9 (HBP10 either 1 or 2).

## 20. Proportion of population who know what is the normal blood pressure

Numerator: Respondents with HBP11=2.

Denominator: All respondents with HBP11  $\neq$  9 (HBP11 1, 2, 3 or 4).

21. Prevalence of those who have been advised by a health professional to carry out non-pharmacological treatment of hypertension among actual and potential hypertensives (advice of non-pharmacological treatment of hypertension):

Numerator: Respondents with HBP4=1.

Denominator: All respondents with HBP4  $\neq$  9 (HBP4 either 1 or 2) and (MSBP $\geq$ 140 or MDBP $\geq$ 90 or HBP3=1).

22. Prevalence of those who have tried to carry out non-pharmacological treatment of hypertension among actual and potential hypertensives (attempt of non-pharmacological treatment of hypertension):

Numerator: respondents with HBP5 = 1

Denominator: All respondents with HBP5  $\neq$  9 (HBP5 either 1 or 2) and (MSBP $\geq$ 140 or MDBP $\geq$ 90 or HBP3=1).

23. Prevalence of those who have carried out successful non-pharmacological treatment of hypertension among actual and potential hypertensives (successful attempt of non-pharmacological treatment of hypertension):

Numerator:	respondents with HBP6 = 1
Denominator:	All respondents with HBP6 $\neq$ 9 (HBP6 either 1 or 2) and (MSBP $\geq$ 140 or MDBP $\geq$ 90 or HBP3=1).

# Additional derived variables used in calculations of indicators:

Mean ( <b>MSBP)</b> and standard deviation ( <b>SDSBP)</b> of systolic blood pressure mmHg	Mean of three systolic blood pressure readings: MSBP= (SBP1+SBP2+SBP3)/3, if SBP1<999, SBP2<999 and SBP3<999. Mean of two systolic blood pressure readings: MSBP=(SBP1+SBP2)/2, if SBP3=999, but SBP1<999 and SBP2<999 MSBP=999, if two of three systolic blood pressure readings (SBP1, SBP2, SBP3) = 999
Mean ( <b>MDBP)</b> and standard deviation ( <b>SDDBP)</b> of diastolic blood pressure mmHg	Mean of three diastolic blood pressure readings MDBP= (DBP1+DBP2+DBP3)/3, if DBP1<999, DBP2<999 and DBP3<999. Mean of two diastolic blood pressure readings, MDBP= (DBP1+DBP2)/2, if DBP3=999, but DBP1<999 and DBP2<999. MDBP=999, if two of three diastolic blood pressure readings (DBP1, DBP2, DBP3) = 999

# Indicators used for reporting the status of population by blood pressure, awareness and treatment

The awareness of hypertension was tested by asking the question whether the person "ever" had hypertension. This category includes all respondents who have been told (by a health professional as well as by another person) that she/he have elevated blood pressure. A history of episodic hypertension (for example such as gestational hypertension), was not always distinguished from a history of established hypertension.

Categories are following:

Respondents with actual and potential hypertension:

- Normotensive-aware-treated (controlled hypertension): Systolic blood pressure < 140 mmHg and diastolic blood pressure < 90 mmHg, told about high blood pressure, currently (last 2 weeks) taking drug prescribed for high blood pressure.
- Hypertensive-unaware-untreated: Systolic blood pressure ≥ 140 mmHg or diastolic blood pressure ≥ 90 mmHg, never told about high blood pressure, not currently (last 2 weeks) taking drug prescribed for high blood pressure.
- Hypertensive-aware-untreated: Systolic blood pressure ≥ 140 mmHg or diastolic blood pressure ≥ 90 mmHg, told about high blood pressure, not currently (last 2 weeks) taking drug prescribed for high blood pressure.
- Hypertensive-aware-treated: Systolic blood pressure ≥ 140 mmHg or diastolic blood pressure ≥ 90 mmHg, told about high blood pressure, currently (last 2 weeks) taking drug prescribed for high blood pressure.

# Respondents with history of hypertension

• **Normotensive-aware-untreated:** Systolic blood pressure < 140 mmHg and diastolic blood pressure < 90 mmHg, told about high blood pressure, not currently (last 2 weeks) taking drug prescribed for high blood pressure.

# Respondents without hypertension:

• **Normotensive-unaware-untreated:** Systolic blood pressure < 140 mmHg and diastolic blood pressure < 90 mmHg, never told about high blood pressure, not currently (last 2 weeks) taking drug prescribed for high blood pressure.

# Description of data according the questionnaire

- 84.5% of respondents have measured their blood pressure during the last 12 months
- 33.7% of sutvey participants have ever been told by physician that they have high blood pressure.
- Prevalence of actual and potential hypertensives take into consideration respondents whose systolic blood pressure was at least 140 mmHg or diastolic blood pressure was at least 90 mmHg or who reported that they are currently (last 2 weeks) taking medication to lower their blood pressure. 33.9% of respondents are considered as actual and potential hypertensives. The highest numbers were detected in the age group 55-65 – 67.4% (62% male and 72.3% female).
- 66.2% of the actual or potential hypertensives reported that they have been told by a health professional to have elevated blood pressure (or hypertension)
- Among the not aware hypertensives there are respondents with first time detected Hypertension (BP  $\geq$  140/90) 31.4%, respondents who knew that had BP  $\geq$  140/90,

but did not take drugs – 12.3%, and respondents who knew that had BP  $\geq$  140/90 and took drugs – 56.3%.

- Mean systolic blood pressure was 124.9±19.0 mmHg (male 127.9±17.1 and female 137.6±21.1). Mean diastolic blood pressure was 80.1±11.5 mmHg (male 81.9±11.0 and female 78.3±11.6). Mean pulse was 76±7.3 (male 76.6±7.4 and female 75.4±7.2).
- 38.2% of survey participants (male 27.5% and female 48.4%) have normal BP; 38.4% (male 47.3% and female 30%) were prehypertensives; 23.4% (male 25.2% and female 21.6%) were hypertensives; 14.5% were hypertensives stage 1; 8.9% were hypertensives stage 2; 5% had isolated systolic hypertension.
- 21.7% of surveyed population use antihypertensive drugs.
- 84.2% of hypertensives (male 74.7% and female 92.5%) use antihypertensive drugs; 65.1% of actual and potential hypertensives (male 52.2% and female 76.1%) are on antihypertensive drug treatment.
- Antyhypertensive drug treatment was effective just in 46.2% (male 38.9% and female 50.4%).
- 41.2% of population taking antihypertensive treatment were advised by physician; 24.8% by friends/relatives; 26.2 took medicine by him/herself.
- 83% have gor their own blood pressure measurement device; 87.9% thinks they have BP measurements skills; but just 60.7% know what does "normal BP" means.
- The mean arm circumference was 30.7±3.7 cm; 66.7% use normal and 27% large size of cuff.
- 29.7% were advised about non-pharmacological treatment by physician; 19.7% have tried to change their lifestyle; 17.9% were successful in this attempt.
- 46.7% of respondents mentioned that they had been used different antihypertensive medications from time to time.
- 656 respondents mentioned only one medications and 496 two or more medications (among them 328 respondents mentioned only 2 medications, 118 –3 medications, 32 – 4 medications and 18 – 5 medications).
- In total, respondents were mentioned 123 antihypertensive medications and 41 of them were not antihypertensive drugs. 142 respondents consider mistakenly as antihypertensive other medications and took to lower blood pressure, mostly aspirin, corvalol, valeriana, preductal, mildronat and other analgetics, trankvilisators, statins.
- In the list of used 7 medications were used more frequently: Adelphane 281 respondents (24%), Raunatine 273 respondents (24%), Clopheline 164 respondents (14%), Enap H 121 respondents (11%), Papazoli 86 respondents (7%), Nifedipine 61 respondents (5%), Korinfar 59 respondents (5%).

46.3% of respondents mentioned use of nonrecomended drugs, 18.3% - ACE inhibitors, 11.8% - Calcium Channel Blockers, 8.2% - Beta Blockers, 0.1% - AR Blockers and 15.3% - Diuretics (but these are mostly in combination with other classes, Hydrochlorothiazide as medication mentioned only 8 respondents.

See ANNEX 10

## **12. ANTIPLATELET DRUGS**

#### **Definitions**

• Prevalence of use of acetylsalicylic acid or similar drugs to prevent or treat heart disease or stroke in age group 55-65.

- Numerator: the number of respondents reporting to use of acetylsalicylic acid or similar drugs to prevent or treat heart disease or stroke.
- Denominator: all survey respondents in age group 55-65.

## **Definition of variables in data:**

ASP

Are you currently taking Aspirin ™ or equivalent acetylsalicylic acid containing medication to prevent or treat heart disease or stroke?

- 1 = yes 2 = no
- 9 = insufficient data

# Additional derived variables used in calculation of indicator:

AGE age at the moment of examination (derived from data of birth and date of examination)

**Deriving indicators** 

Prevalence of use of acetylsalicylic acid or similar drugs to prevent or treat heart disease or stroke:

Numerator: respondents with  $55 \le AGE \le 65$  and ASP = 1

Denominator: all respondent with  $55 \le AGE \le 65$  and ASP either 1 or 2

# Description of data according the questionnaire

88.4% of respondents in the age group  $\geq$  55 haven't used aspirin or similar drugs to prevent or treat heart disease or stroke.

See ANNEX 11

# **13. SURVEY OUTPUTS, INITIATIVES, CONSTRAINTS AND LIMITATIONS**

# Survey Outputs

- We have obtained the indicators for estimation of NCD risk factors and determinant;
- The model for study of NCD indicators was established, which contents (methodology, instruments, communications and others) can be used for making surveillance system of NCD;
- Capacity of human resources was intensified in the direction of NCD management. It can be used for making of NCD surveillance system;
- We have spreaded systematically information about NCD in health system, as well as in survey population that helped to reinforce knowledge in this sphere in Georgia.

## **Presentation to Policy-Makers**

- At the end of the survey (22.11.2007) at the National Centre of Disease Control and Public Health of MoLHSA of Georgia we have conducted the conference. Policy-Makers and relevant stakeholders at national level took part in the conference. The NCD Risk Factors Survey results were observed on this meeting.
- The design of the survey and results have presented to the Parliament Committee on Health and Social Affairs, November 14, 2007.

## **Possible Utilities of Survey Results**

- We conducted the CINDI Risk Factor Survey in Georgia for the first time;
- Results of the CINDI Risk Factor Survey 2006-2007 are important for our Ministry of Health and other health institutions because we have data about health system, health behavior, risk factors and determinants of our population, which is interesting and useful for development national health policy and strategies on prevention and control of noncommunicable diseases which should be adopted by the Government. Also this information will help to establish of community health programs and other NCD prevention projects;
- We have computerized system for data. Databases will be submitted to the CINDI Centre. Data obtained on peoples' health behavior habits can be compared with data from other CINDI countries and then priorities for intervention can be defined;
- The report on CINDI RFS Survey has sent to the WHO Regional Office for Europe. Report will also be published online and we will provide availability on the Internet of this RFS data (age-specific and standardized);
- We plan presentations for International and national conferences and seminars.

#### Initiatives

- Voluntary participation to accompany survey teams and help on data collection and implementing the survey;
- Survey teams were performing interviews in unusual circumstances;
- Survey teams were conducted repetition of visit more than one time;
- Starting work very early in the morning for data collection;
- Continuation of the work after the official commitment time;
- Participation of individuals from the community (especially in "Italian Court") in accompanying the teams;
- Informing the respondent persons with the results of investigations and providing them with medical advice;
- Benefiting from the interview opportunity with the families during the period of survey for health education and encouraging healthy life styles.

# **Constraints and Limitations**

- Population agreement on blood collection: they did not know importance of glucose and cholesterol tests;
- Non-existence of some men due to their professional commitment;
- Presence of locked houses due to internal displacement of the target persons;
- No awareness of respondents in implementation of survey, no information on TV and mass media;
- No participation of individuals of community or members from civil society organizations in accompanying the work teams;
- Limitation of age of survey population (25-65 years);
- The questionnaire is rather big. Considerable time was required to fill in, especially for patients with poor education;
- Population low confidence in medical surveys and doctors;
- Replenish the survey teams: in the beginning less cooperation in teams.

# **14. SURVEY CONCLUSIONS AND FUTURE PLANS**

The results of NCD Risk Factors Survey 2006-2007 have shown that the prevalence of NCD risk factors and their determinants are very high and we suppose that this is the main reason of burden of NCD in Georgia.

# **Recommendations:**

- We consider that it is necessary to establish of a stepwise surveillance system of NCD in Georgia. Conducting this survey showed possibilities for conducting other surveys in the future and elevated capacity of CINDI team in Georgia. We think it is important:
  - Conduct the survey of NCD risk factors at national level in the whole country;
  - To implement NCD risk factors survey on regular bases (within 3-5 years);
  - To involve in the survey many different institutions and relevant stakeholders.
- It would be better if the instruments on the next survey will be modificated, include further expanded questions and in addition to extensions of the study framework to include younger age groups and older age groups;
- Continuous collaboration with the WHO-EURO, other international organizations and scientific centers in implementation of the NCD control projects;

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# SOCIO DEMOGRAPHIC CHARACTERISTICS

Age groups	Mai	le	Fem	ale	Total		
	N	%	N	%	N	%	
25-34	305	12.3	303	12.3	608	24.6	
35-44	304	12.3	307	12.4	611	24.7	
45-54	296	12.0	320	12.9	616	24.9	
55-65	307	12.4	330	13.3	637	25.8	
Total	1212	49.0	1260	51.0	2472	100.0	

Table 1.1. Distribution of the study population by age and gender

Table 1.2. Marital status of the study population by gender and age groups.

						Merita	l statu	S						
			Μ	lale					Total	%				
	25-34	35-44	45-54	55-65	Total	%	25-34	35-44	45-54	55-65	Total	%		
Married/not living alone	181	253	272	276	982	81.0	224	250	251	212	937	74.4	1919	77.6
Unmaried/living alone	117	39	14	12	182	15.0	61	38	26	31	156	12.4	338	13.7
Divorced	2	2	4	5	13	1.1	13	6	16	16	51	4.0	64	2.6
Widow	0	0	0	5	5	0.4	3	10	24	68	105	8.3	110	4.4
Insufficient data	5	10	6	9	30	2.5	2	3	3	3	11	0.9	41	1.7
Total	305	304	296	307	1212	100.0	303	307	320	330	1260	100.0	2472	100.0

Table 1.3. Distribution of the respondents according to the mean number of years of education by age groups and gender

Indiantar			Male				Total				
Indicator	25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	Total
Mean years of education	14.9	14.9	14.8	14.9	14.9	14.7	14.6	14.7	14.6	14.7	14.8

			М	ale					Fen	nale			Tatal	0(
	25-34	35-44	45-54	55-65	Total	%	25-34	35-44	45-54	55-65	Total	%	Total	%
Farmer	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Industry worker, driver	36	72	61	51	220	18.2	8	16	19	10	53	4.2	273	11.0
Office worker	140	120	101	85	446	36.8	87	89	95	83	354	28.1	800	32.4
Student	11	0	0	0	11	0.9	8	1	0	0	9	0.7	20	0.8
House wife	0	0	0	0	0	0.0	87	89	81	51	308	24.4	308	12.5
Retired	2	6	15	55	78	6.4	1	2	4	102	109	8.7	187	7.6
Unemployed	115	103	119	115	452	37.3	112	109	120	83	424	33.7	876	35.4
Insufficient data	1	3	0	1	5	0.4	0	1	1	1	3	0.2	8	0.3
Total	305	304	296	307	1212	100.0	303	307	320	330	1260	100.0	2472	100.0

Table 1.4. Distribution of the respondents according to the employment status, by age groups and gender

# HEALTH STATUS

	At	tend to	health	related	d actio	ns duriı	ng the l	ast 12	months	;		
				Male								
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	Total
Number of responden	ts	305	304	296	307	1212	303	307	320	330	1260	2472
Yes	Ν	15	11	7	11	44	25	20	24	20	89	133
165	%	4.9	3.6	2.4	3.6	3.6	8.3	6.5	7.5	6.1	7.1	5.4
No	Ν	286	286	281	289	1142	266	282	277	306	1131	2273
NO %		93.8	94.1	94.9	94.1	94.2	87.8	91.9	86.6	92.7	89.8	91.9
Insufficient data	Ν	4	7	8	7	26	12	5	19	4	40	66
mounicient Uala	%	1.3	2.3	2.7	2.3	2.1	4.0	1.6	5.9	1.2	3.2	2.7

Table 2.1. Attend to health related actions during the last 12 months

Table 2.2. Information from leaflet about health during the last year

		Info	rmation	from le	aflet ab	out hea	Ith durii	ng the la	ast year			
				Male								
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	Total
Number of respondents		305	304	296	307	1212	303	307	320	330	1260	2472
	Ν	5	7	7	8	27	27	17	31	16	91	118
Weekly	%	1.6	2.3	2.4	2.6	2.2	8.9	5.5	9.7	4.8	7.2	4.8
	Ν	2	7	7	7	23	13	24	21	5	63	86
Monthly	%	0.7	2.3	2.4	2.3	1.9	4.3	7.8	6.6	1.5	5.0	3.5
Rarely or never	Ν	298	290	282	292	1162	263	266	268	309	1106	2268
Tarely of flever	%	97.7	95.4	95.3	95.1	95.9	86.8	86.6	83.8	93.6	87.8	91.7

		Info	ormatior	n from T	V abou	t health	during	the last	year			
				Male				Total				
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	rotar
Number of responde	304	296	307	1212	303	307	320	330	1260	2472		
	Ν	41	47	44	78	210	136	162	137	183	618	828
Weekly	%	13.4	15.5	14.9	25.4	17.3	44.9	52.8	42.8	55.5	49.0	33.5
	N	44	54	71	61	230	74	77	92	79	322	552
Monthly	%	14.4	17.8	24.0	19.9	19.0	24.4	25.1	28.8	23.9	25.6	22.3
Paraly or pover	Ν	220	203	181	168	772	93	68	91	68	320	1092
Rarely or never	%	72.1	66.8	61.1	54.7	63.7	30.7	22.1	28.4	20.6	25.4	44.2

 Table 2.4. Information from radio about health during the last year

		Infor	mation	from ra	dio abo	ut healt	h during	g the las	t year			
				Male				Tatal				
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	Total
Number of responde	nts	305	304	296	307	1212	303	307	320	330	1260	2472
	Ν	7	13	11	14	45	23	28	42	37	130	175
Weekly	%	2.3	4.3	3.7	4.6	3.7	7.6	9.1	13.1	11.2	10.3	7.1
	Ν	8	11	18	20	57	20	17	24	24	85	142
Monthly	%	2.6	3.6	6.1	6.5	4.7	6.6	5.5	7.5	7.3	6.7	5.7
Barely or payer	Ν	290	280	267	273	1110	260	262	254	269	1045	2155
Rarely or never	%	95.1	92.1	90.2	88.9	91.6	85.8	85.3	79.4	81.5	82.9	87.2

Table 2.5. Information from newspaper about health during the last year

		Informa	tion fro	m news	paper a	bout he	alth du	ring the	last yea	nr		
				Male					Female			
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	Total
Number of responde				296	307	1212	303	307	320	330	1260	2472
	Ν	20	20	19	38	97	57	69	83	85	294	391
Weekly	%	6.6	6.6	6.4	12.4	8.0	18.8	22.5	25.9	25.8	23.3	15.8
	Ν	19	28	31	33	111	40	49	64	57	210	321
Monthly	%	6.2	9.2	10.5	10.7	9.2	13.2	16.0	20.0	17.3	16.7	13.0
Parely or power	Ν	266	256	246	236	1004	206	189	173	188	756	1760
Rarely or never	%	87.2	84.2	83.1	76.9	82.8	68.0	61.6	54.1	57.0	60.0	71.2

Table 2.6. Information from magazine about health during the last year

		Informa	ation fro	om mag	azine al	bout hea	alth duri	ing the l	last yea	r		
				Male					Female			<b>T</b>
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	Total
Number of responde	ents	305	304	296	307	1212	303	307	320	330	1260	2472
	Ν	23	29	21	38	111	77	82	89	86	334	445
Weekly	%	7.5	9.5	7.1	12.4	9.2	25.4	26.7	27.8	26.1	26.5	18.0
	Ν	17	25	34	31	107	53	60	64	46	223	330
Monthly	%	5.6	8.2	11.5	10.1	8.8	17.5	19.5	20.0	13.9	17.7	13.3
Rarely or never	Ν	265	250	241	238	994	173	165	167	198	703	1697
narely of never	%	86.9	82.2	81.4	77.5	82.0	57.1	53.7	52.2	60.0	55.8	68.6

Table 2.7. Information from lecture about health during the last year

		Inforn	nation f	rom lec	ture ab	out hea	lth duri	ng the l	ast yea	r		
				Male					Female			Total
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	TOLAI
Number of responde	nts	305	304	296	307	1212	303	307	320	330	1260	2472
	Ν	4	3	6	4	17	11	8	10	3	32	49
Weekly	%	1.3	1.0	2.0	1.3	1.4	3.6	2.6	3.1	0.9	2.5	2.0
	Ν	1	6	3	2	12	4	10	10	2	26	38
Monthly	%	0.3	2.0	1.0	0.7	1.0	1.3	3.3	3.1	0.6	2.1	1.5
Rarely or never	Ν	300	295	287	301	1183	288	289	300	325	1202	2385
narely of never	%	98.4	97.0	97.0	98.0	97.6	95.0	94.1	93.8	98.5	95.4	96.5

Table 2.8. Information about health during the last year

		Inform	ation a	bout he	ealth du	uring th	e last y	/ear				
				Male					Female			Total
Number of	respondents	25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	rotar
		305	304	296	307	1212	303	307	320	330	1260	2472
	Weekly	2	2	2	3	2	9	6	10	5	7	5
leaflets	Monthly	1	2	2	2	2	4	8	7	2	5	3
	Rarely or never	98	95	95	95	96	87	87	84	94	88	92
	Weekly	13	15	15	25	17	45	53	43	55	49	33
TV	Monthly	14	18	24	20	19	24	25	29	24	26	22
	Rarely or never	72	67	61	55	64	31	22	28	21	25	44
	Weekly	2	4	4	5	4	8	9	13	11	10	7
Radio	Monthly	3	4	6	7	5	7	6	8	7	7	6
	Rarely or never	95	92	90	89	92	86	85	79	82	83	87
	Weekly	7	7	6	12	8	19	22	26	26	23	16
Newspapers	Monthly	6	9	10	11	9	13	16	20	17	17	13
	Rarely or never	87	84	83	77	83	68	62	54	57	60	71
	Weekly	8	10	7	12	9	25	27	28	26	27	18
Magazines	Monthly	6	8	11	10	9	17	20	20	14	18	13
	Rarely or never	87	82	81	78	82	57	54	52	60	56	69
	Weekly	1	1	2	1	1	4	3	3	1	3	2
Lectures	Monthly	0	2	1	1	1	1	3	3	1	2	2
	Rarely or never	98	97	97	98	98	95	94	94	98	95	96

Table 2.9. Comprehensive health examination during the last year

		Com	orehens	sive hea	alth exa	minatio	on durin	g the la	ast year			
				Male					Female			Total
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	TOLAI
Number of respondents		305	304	296	307	1212	303	307	320	330	1260	2472
	Ν	69	63	78	97	307	77	75	82	112	346	653
Yes	%	22.6	20.7	26.4	31.6	25.3	25.4	24.4	25.6	33.9	27.5	26.4
	Ν	227	240	216	210	893	222	232	231	216	901	1794
No	%	74.4	78.9	73.0	68.4	73.7	73.3	75.6	72.2	65.5	71.5	72.6
	Ν	9	1	2	0	12	4	0	7	2	13	25
Insufficient data	%	3.0	0.3	0.7	0.0	1.0	1.3	0.0	2.2	0.6	1.0	1.0

Table 2.10. Advised about tobacco cessation during the last year

		Advis	ed abou	t tobaco	cessatio	n during	the last	year				
				Male					Female			Total
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	TOTAL
Number of respondents	6	305	304	296	307	1212	303	307	320	330	1260	2472
By a family member	Ν	150	161	134	102	547	42	40	46	21	149	696
by a family member	%	49.2	53.0	45.3	33.2	45.1	13.9	13.0	14.4	6.4	11.8	28.2
Dy a friand	Ν	32	37	48	25	142	13	18	21	9	61	203
By a friend	%	10.5	12.2	16.2	8.1	11.7	4.3	5.9	6.6	2.7	4.8	8.2
	Ν	7	5	7	4	23	3	1	7	3	14	37
By a colleague	%	2.3	1.6	2.4	1.3	2	1.0	0.3	2.2	0.9	1.1	1.5
by others	Ν	20	23	37	23	103	7	8	19	9	43	146
by others	%	6.6	7.6	12.5	7.5	8.5	2.3	2.6	5.9	2.7	3.4	5.9
By no ono	Ν	144	130	146	194	614	250	253	262	300	1065	1679
By no one	%	47.2	42.8	49.3	63.2	50.7	82.5	82.4	81.9	90.9	84.5	67.9

		Adv	vised a	bout w	eight lo	ose dur	ing the	last y	ear			
			10	Male	1			1.	Female	)		
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	Total
Number of responder	nts	305	304	296	307	1212	303	307	320	330	1260	2472
	Ν	49	72	73	50	244	32	57	74	68	231	475
By a family member	%	16.1	23.7	24.7	16.3	20.1	10.6	18.6	23.1	20.6	18.3	19.2
By a friend	Ν	11	15	15	12	53	9	19	31	24	83	136
by a menu	%	3.6	4.9	5.1	3.9	4.4	3.0	6.2	9.7	7.3	6.6	5.5
Duranallara	Ν	3	5	3	0	11	0	2	5	1	8	19
By a colleague	%	1.0	1.6	1.0	0.0	1	0.0	0.7	1.6	0.3	0.6	0.8
By a health care	Ν	8	14	29	24	75	8	13	28	48	97	172
personnel	%	2.6	4.6	9.8	7.8	6.2	2.6	4.2	8.8	14.5	7.7	7.0
Dy athera	Ν	1	1	0	0	2	1	1	1	1	4	6
By others	%	0.3	0.3	0.0	0.0	0.2	0.3	0.3	0.3	0.3	0.3	0.2
By no ono	Ν	243	219	206	236	904	258	228	210	210	906	1810
By no one	%	79.7	72.0	69.6	76.9	74.6	85.1	74.3	65.6	63.6	71.9	73.2

Table 2.11. Advised about weight lose during the last year

Table 2.12. Advised about fat consumption during the last year

		Advise	ed abo	ut fat c	onsum	ption d	luring t	he last	t year			
				Male					Female	)		Tatal
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	Total
Number of responde	ents	305	304	296	307	1212	303	307	320	330	1260	2472
By a family mombor	Ν	34	50	55	33	172	13	35	45	49	142	314
By a family member	%	11.1	16.4	18.6	10.7	14.2	4.3	11.4	14.1	14.8	11.3	12.7
Du a friand	Ν	9	13	6	6	34	2	10	18	8	38	72
By a friend	%	3.0	4.3	2.0	2.0	2.8	0.7	3.3	5.6	2.4	3.0	2.9
	Ν	2	2	1	0	5	0	1	2	1	4	9
By a colleague	%	0.7	0.7	0.3	0.0	0	0.0	0.3	0.6	0.3	0.3	0.4
By a health care	Ν	10	16	30	29	85	8	13	27	49	97	182
personnel	%	3.3	5.3	10.1	9.4	7.0	2.6	4.2	8.4	14.8	7.7	7.4
	Ν	1	1	0	0	2	1	2	1	1	5	7
By others	%	0.3	0.3	0.0	0.0	0.2	0.3	0.7	0.3	0.3	0.4	0.3
By no ono	Ν	254	238	217	241	950	277	243	236	227	983	1933
By no one	%	83.3	78.3	73.3	78.5	78.4	91.4	79.2	73.8	68.8	78.0	78.2

		Ad	ised a	bout s	alt inta	ke duri	ng the	last ye	ar			
				Male					Female			Tatat
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	Total
Number of responde	nts	305	304	296	307	1212	303	307	320	330	1260	2472
Pu a familu mombor	Ν	29	43	45	30	147	7	26	30	32	95	242
By a family member	%	9.5	14.1	15.2	9.8	12.1	2.3	8.5	9.4	9.7	7.5	9.8
Dy a friand	Ν	5	11	5	5	26	1	8	14	7	30	56
By a friend	%	1.6	3.6	1.7	1.6	2.1	0.3	2.6	4.4	2.1	2.4	2.3
	Ν	2	2	1	0	5	0	1	2	3	6	11
By a colleague	%	0.7	0.7	0.3	0.0	0	0.0	0.3	0.6	0.9	0.5	0.4
By a health care	Ν	9	16	26	36	87	8	16	25	52	101	188
personnel	%	3.0	5.3	8.8	11.7	7.2	2.6	5.2	7.8	15.8	8.0	7.6
By others	Ν	2	2	0	0	4	1	4	1	0	6	10
By others	%	0.7	0.7	0.0	0.0	0.3	0.3	1.3	0.3	0.0	0.5	0.4
By no ono	Ν	262	244	230	240	976	283	248	255	238	1024	2000
By no one	%	85.9	80.3	77.7	78.2	80.5	93.4	80.8	79.7	72.1	81.3	80.9

Table 2.13. Advised about salt intake during the last year

Table 2.14. Advised to increase physical activity during the last year

	Ac	lvised	to incr	ease p	hysica	activit	y durin	g the l	ast yea	nr		
				Male					Female	)		Total
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	TOTAL
Number of responder	nts	305	304	296	307	1212	303	307	320	330	1260	2472
By a family member	Ν	26	40	34	29	129	15	24	28	27	94	223
by a family member	%	8.5	13.2	11.5	9.4	10.6	5.0	7.8	8.8	8.2	7.5	9.0
By a friand	Ν	7	10	5	6	28	6	10	18	6	40	68
By a friend	%	2.3	3.3	1.7	2.0	2.3	2.0	3.3	5.6	1.8	3.2	2.8
By a colleague	Ν	2	2	1	0	5	0	1	4	1	6	11
By a colleague	%	0.7	0.7	0.3	0.0	0	0.0	0.3	1.3	0.3	0.5	0.4
By a health care	Ν	5	15	20	20	60	7	12	15	27	61	121
personnel	%	1.6	4.9	6.8	6.5	5.0	2.3	3.9	4.7	8.2	4.8	4.9
by othere	Ν	1	0	0	0	1	2	2	2	2	8	9
by others	%	0.3	0.0	0.0	0.0	0.1	0.7	0.7	0.6	0.6	0.6	0.4
By no one	Ν	263	249	243	254	1009	268	254	259	269	1050	2059
	%	86.2	81.9	82.1	82.7	83.3	88.4	82.7	80.9	81.5	83.3	83.3

		A	dvised	d to dri	nk less	during	the la	st year				
				Male					Female	)		
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	Tota
Number of responder	nts	305	304	296	307	1212	303	307	320	330	1260	2472
Pu o familu mombor	Ν	51	58	66	54	229	2	2	2	2	8	237
By a family member	%	16.7	19.1	22.3	17.6	18.9	0.7	0.7	0.6	0.6	0.6	9.6
Du a friand	Ν	6	11	2	8	27	0	1	0	0	1	28
By a friend	%	2.0	3.6	0.7	2.6	2.2	0.0	0.3	0.0	0.0	0.1	1.1
	Ν	0	2	0	3	5	0	0	0	0	0	5
By a colleague	%	0.0	0.7	0.0	1.0	0	0.0	0.0	0.0	0.0	0.0	0.2
By a health care	Ν	8	13	17	16	54	0	0	0	2	2	56
personnel	%	2.6	4.3	5.7	5.2	4.5	0.0	0.0	0.0	0.6	0.2	2.3
la contra contra	Ν	2	2	0	0	4	2	0	0	0	2	6
by others	%	0.7	0.7	0.0	0.0	0.3	0.7	0.0	0.0	0.0	0.2	0.2
By no one	Ν	243	233	219	235	930	295	299	314	322	1230	2160
By no one	%	79.7	76.6	74.0	76.5	76.7	97.4	97.4	98.1	97.6	97.6	87.4

Table 2.16. Proportion of respondents advised by doctor during the last year

Advised by doctor during the last year													
				Male					Female				
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	Total	
Number of respondent	s	305	304	296	307	1212	303	307	320	330	1260	2472	
To stop smoking	Ν	45	58	67	61	231	12	18	33	14	77	308	
To stop smoking	%	14.8	19.1	22.6	19.9	19.1	4.0	5.9	10.3	4.2	6.1	12.5	
to logo weight	Ν	23	34	52	42	151	15	33	57	78	183	334	
to lose weight	%	7.5	11.2	17.6	13.7	12.5	5.0	10.7	17.8	23.6	14.5	13.5	
To decrease fat	Ν	22	33	52	51	158	18	36	54	80	188	346	
consumption	%	7.2	10.9	17.6	16.6	13	5.9	11.7	16.9	24.2	14.9	14.0	
To decrease salt	Ν	20	32	55	57	164	18	36	50	83	187	351	
consumption	%	6.6	10.5	18.6	18.6	13.5	5.9	11.7	15.6	25.2	14.8	14.2	
To increase physical	Ν	15	31	39	35	120	19	26	40	39	124	244	
activity	%	4.9	10.2	13.2	11.4	9.9	6.3	8.5	12.5	11.8	9.8	9.9	
	N	9	27	31	28	95	0	0	0	1	1	96	
To drink less	%	3.0	8.9	10.5	9.1	7.8	0.0	0.0	0.0	0.3	0.1	3.9	

Table 2.17. Proportion of respondents who had attempted to change lifestyle during the last year

Attempt during the last year												
				Male					Female			Total
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	Total
Number of respondents		305	304	296	307	1212	303	307	320	330	1260	2472
To stop smaking	N	57	44	54	45	200	25	23	25	12	85	285
To stop smoking	%	18.7	14.5	18.2	14.7	16.5	8.3	7.5	7.8	3.6	6.7	11.5
to loco weight	N	30	31	44	40	145	51	76	87	85	299	444
to lose weight	%	9.8	10.2	14.9	13.0	12.0	16.8	24.8	27.2	25.8	23.7	18.0
To decrease fat	N	25	28	39	42	134	40	69	77	89	275	409
consumption	%	8.2	9.2	13.2	13.7	11	13.2	22.5	24.1	27.0	21.8	16.5
To decrease salt	N	21	19	32	46	118	25	57	59	82	223	341
consumption	%	6.9	6.3	10.8	15.0	9.7	8.3	18.6	18.4	24.8	17.7	13.8
To increase physical	N	23	20	25	24	92	29	33	35	24	121	213
activity	%	7.5	6.6	8.4	7.8	7.6	9.6	10.7	10.9	7.3	9.6	8.6
	Ν	15	16	22	20	73	0	0	0	0	0	73
To drink less	%	4.9	5.3	7.4	6.5	6.0	0.0	0.0	0.0	0.0	0.0	3.0

#### Table 2.18. Proportion of respondents who had managed to change lifestyle during the last year

Did you manage during the last year														
				Male					Female			Total		
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	TOTAI		
Number of respondents	i	305	304	296	307	1212	303	307	320	330	1260	2472		
To stop smoking	Ν	24	19	28	17	88	10	5	5	5	25	113		
TO Stop Smoking	%	7.9	6.3	9.5	5.5	7.3	3.3	1.6	1.6	1.5	2.0	4.6		
to loss weight	Ν	22	21	30	25	98	43	58	49	42	192	290		
to lose weight	%	7.2	6.9	10.1	8.1	8.1	14.2	18.9	15.3	12.7	15.2	11.7		
To decrease fat	Ν	19	22	32	34	107	42	56	56	67	221	328		
consumption	%	6.2	7.2	10.8	11.1	9	13.9	18.2	17.5	20.3	17.5	13.3		
To decrease salt	Ν	16	15	28	34	93	25	42	43	64	174	267		
consumption	%	5.2	4.9	9.5	11.1	7.7	8.3	13.7	13.4	19.4	13.8	10.8		
To increase physical	Ν	16	18	18	21	73	19	20	21	14	74	147		
activity	%	5.2	5.9	6.1	6.8	6.0	6.3	6.5	6.6	4.2	5.9	5.9		
To drink less	Ν	12	12	15	21	60	0	0	0	0	0	60		
	%	3.9	3.9	5.1	6.8	5.0	0.0	0.0	0.0	0.0	0.0	2.4		

# TOBACCO USE

	Have you ever smoked daily (= almost every day for at least one year)?													
			٨	Nale					F	emale				
	25-34	35-44	45-54	55-65	Total	%	25-34	35-44	45-54	55-65	Total	%	Total	%
Yes	227	253	251	213	944	77.9	89	90	112	59	350	27.8	1294	52.3
No	76	50	45	93	264	21.8	213	215	208	271	907	72.0	1171	47.4
Insufficient data	2	1	0	1	4	0.3	1	2	0	0	3	0.2	7	0.3
Total	305	304	296	307	1212	100.0	303	307	320	330	1260	100.0	2472	100.0

#### Table 3.1. Distribution of the respondents according to the smoking hystory, by age groups and gender

Table 3.2. Mean duration of smoking (in years) among ever daily smokers, by age groups and gender

	Mean duration of smoking (Years)												
		Male					Total						
25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	10121			
11	11 19 24 28 21					13	19	20	15	19			

Table 3.3. Intensity of cigarette smoking per day

	On average, how many cigarettes do you smoke per day?													
			М	ale					Fe	emale			Total	%
	25-34	35-44	45-54	55-65	Total	%	25-34	35-44	45-54	55-65	Total	%	TOLA	70
Mean number of cigarettes per day	20	22	23	20	21		10	13	14	13	13		19	
1-3	3	8	5	8	24	2.5	11	8	8	9	36	10.2	60	4.6
4-9	18	17	11	13	59	6.3	26	21	18	13	78	22.0	137	10.6
10-19	56	41	45	46	188	19.9	37	29	49	17	132	37.3	320	24.7
20-39	132	147	143	121	543	57.5	15	32	32	17	96	27.1	639	49.2
≥ 40	20	40	44	26	130	13.8	0	2	6	4	12	3.4	142	10.9
Insufficient data	0	0	3	0	3	0.3	0	0	0	0	0	0	3	0.2
Total	229	253	248	214	944	100.0	89	92	113	60	354	100.0	1298	100.0

Table 3.4. Distribution of the respondents according to current smoking status by age groups and gender

Do you now smoke?														
			٨	Nale					Fe	emale				
	25-34	35-44	45-54	55-65	Total	%	25-34	35-44	45-54	55-65	Total	%	Total	%
Daily smoker	194	222	184	130	730	60.2	69	77	92	38	276	21.9	1006	40.7
Occasionally smoker	5	3	8	10	26	2.1	3	2	3	3	11	0.9	37	1.5
No smoker	103	77	104	165	449	37.0	229	227	224	288	968	76.8	1417	57.3
Uncertain	3	2	0	2	7	0.6	2	1	1	1	5	0.4	12	0.5
Total	305	304	296	307	1212	100.0	303	307	320	330	1260	100.0	2472	100.0

Table 3.5. Number and percentage of current daily smokers for each type of smoking

Type of tobacco products	Current daily s (N=1006	
	N	%
Manufactured cigarette	1004	99.8
Pipes	2	0.2
Cigars	0	0
Hand rolled cigarettes and others	0	0

Table 3.6. Proportion of daily smokers advised by health professional to quit smoking

Have y	Have you during the past year been advised by a health professional to stop smoking?													
			Ma	ale					Fe	male			Tatal	0(
	25-34	35-44	45-54	55-65	Total	%	25-34	35-44	45-54	55-65	Total	%	Total	%
Yes	43	56	60	55	214	29.3	10	17	32	13	72	26.1	286	28.4
No	139	160	118	70	487	66.7	57	58	50	21	186	67.4	673	66.9
Insufficient data	12	6	6	5	29	4.0	2	2	10	4	18	6.5	47	4.7
Total	194	222	184	130	730	100.0	69	77	92	38	276	100.0	1006	100.0

Are you concer	ned a	bout the	harmfu	l conseq	uences	that smo	oking ca	n have c	on your h	nealth?		
				Male					Female			Tatal
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	Total
Ever daily smokers		227	253	251	213	944	89	90	112	59	350	1294
Very concerned	Ν	153	183	183	160	679	76	76	97	50	299	978
very concerned	%	67.4	72.3	72.9	75.1	71.9	85.4	84.4	86.6	84.7	85.4	75.6
Somewhat concerned	Ν	48	40	33	35	156	10	9	12	5	36	192
Somewhat concerned	%	21.1	15.8	13.1	16.4	16.5	11.2	10.0	10.7	8.5	10.3	14.8
Not much concerned	Ν	19	20	20	13	72	2	5	3	2	12	84
Not much concerned	%	8.4	7.9	8.0	6.1	7.6	2.2	5.6	2.7	3.4	3.4	6.5
Not at all concerned	Ν	3	3	5	1	12	0	0	0	1	1	13
	%	1.3	1.2	2.0	0.5	1.3	0.0	0.0	0.0	1.7	0.3	1.0
Insufficient data	Ν	4	7	10	4	25	1	0	0	1	2	27
	%	1.8	2.8	4.0	1.9	2.6	1.1	0.0	0.0	1.7	0.6	2.1

Table 3.8. Proportion of smokers who feel a desire to stop smoking

Would you like to stop smoking?													
				Male					Female				
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	Total	
Ever daily smokers		227	253	251	213	944	89	90	112	59	350	1294	
No	Ν	61	59	46	33	199	19	18	31	9	77	276	
	%	26.9	23.3	18.3	15.5	21.1	21.3	20.0	27.7	15.3	22.0	21.3	
Yes	Ν	86	93	76	68	323	29	34	37	15	115	438	
res	%	37.9	36.8	30.3	31.9	34.2	32.6	37.8	33.0	25.4	32.9	33.8	
I am not shure	Ν	50	70	65	35	220	24	26	24	16	90	310	
Tam not shule	%	22.0	27.7	25.9	16.4	23.3	27.0	28.9	21.4	27.1	25.7	24.0	
l de net emplie et present	Ν	24	27	61	73	185	14	12	19	18	63	248	
I do not smoke at present	%	10.6	10.7	24.3	34.3	19.6	15.7	13.3	17.0	30.5	18.0	19.2	
Insufficient data	Ν	6	4	3	4	17	3	0	1	1	5	22	
	%	2.6	1.6	1.2	1.9	1.8	3.4	0.0	0.9	1.7	1.4	1.7	

Table 3.9. Proportion of smokers who have tried to stop smoking	_
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Have you ever	tried :	seriously	v to stop	smoking	and bee	en withou	ut smoki	ng for at	least 24	hours?		
				Male					Female			
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	Total
Ever daily smokers		227	253	251	213	944	89	90	112	59	350	1294
During the last menth	Ν	12	6	16	9	43	4	4	9	3	20	63
During the last month	%	5.3	2.4	6.4	4.2	4.6	4.5	4.4	8.0	5.1	5.7	4.9
A month to half a year are	Ν	18	16	24	9	67	19	9	7	8	43	110
A month to half a year ago	%	7.9	6.3	9.6	4.2	7.1	21.3	10.0	6.3	13.6	12.3	8.5
	Ν	30	34	17	24	105	11	14	10	4	39	144
Half a year to one year ago	%	13.2	13.4	6.8	11.3	11.1	12.4	15.6	8.9	6.8	11.1	11.1
More then one year age	Ν	58	76	102	107	343	25	30	41	24	120	463
More than one year ago	%	25.6	30.0	40.6	50.2	36.3	28.1	33.3	36.6	40.7	34.3	35.8
Never	Ν	106	119	91	64	380	30	32	45	19	126	506
Never	%	46.7	47.0	36.3	30.0	40.3	33.7	35.6	40.2	32.2	36.0	39.1
Incufficient data	Ν	3	2	1	0	6	0	1	0	1	2	8
Insufficient data	%	1.3	0.8	0.4	0.0	0.6	0.0	1.1	0.0	1.7	0.6	0.6

## Table 3.10. Proportion of ex-daily smokers

					Ex	x-daily	smoke	r						
			Ма	le					Fe	male			Total	%
	25-34	35-44	45-54	55-65	Total	%	25-34	35-44	45-54	55-65	Total	%	Total	70
Ex-daily smokers, curently occasional smokers	4	2	8	10	24	11.4	3	1	2	2	8	11.0	32	11.3
Ex-daily smokers, curently non- smokers	28	28	59	71	186	88.6	17	12	18	18	65	89.0	251	88.7
Ex-daily smoker	32	30	67	81	210	100.0	20	13	20	20	73	100.0	283	100.0

			W	hen di	d you	smoke	the l	ast tir	ne?					
			М	ale					Fe	emale			Total	%
	25-34	35-44	45-54	55-65	Total	%	25-34	35-44	45-54	55-65	Total	%	TOLAI	70
Today or yesterday	195	219	180	135	729	77.2	67	75	92	39	273	78.0	1002	77.4
2 days - 1 month ago	4	2	10	7	23	2.4	4	2	0	1	7	2.0	30	2.3
1 month - 6 month ago	6	7	1	1	15	1.6	7	0	2	2	11	3.1	26	2.0
6 month - 1 year ago	5	6	12	5	28	3.0	3	1	1	1	6	1.7	34	2.6
1- 5 years ago	7	8	13	14	42	4.4	6	9	9	5	29	8.3	71	5.5
5 - 10 years ago	5	4	18	14	41	4.3	1	1	5	5	12	3.4	53	4.1
More than 10 years ago	1	4	11	35	51	5.4	0	1	2	4	7	2.0	58	4.5
Insufficient data	4	3	6	2	15	1.6	1	1	1	2	5	1.4	20	1.5
Total	227	253	251	213	944	100	89	90	112	59	350	100	1294	100

# **Results of Indicators**

Indicator	Male	Female	Total
Primary indicators			
Prevalence of smokers	62.3	22.8	42.2
Prevalence of daily smokers	60.2	21.9	40.7
Prevalence of non-smokers	37.0	76.8	57.3
Prevalence of ever daily smokers	77.9	27.8	52.3
Prevalence of never daily smokers	22.1	72.2	47.7
Prevalence of daily cigarette smokers	99.7	0.0	99.8
Prevalence of ex-daily smokers:	17.3	5.8	11.4
Secondary indicators			
<ul> <li>Mean duration of smoking (in years) among ever daily smokers</li> </ul>	21	15	19
Prevalence of occasional smokers	2.1	0.9	1.5
Intensity of cigarette smoking per day	21	13	19
<ul> <li>Proportion of daily smokers advised by health professionals to quit smoking</li> </ul>	29.3	26.1	28.4

# **ALCOHOL CONSUMPTION**

		Amo	unt of b	eer con	sumed	during	the pre	vious we	eek			
				Male					Female			
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	Total
Number o respondents		305	304	296	307	1212	303	307	320	330	1260	2472
	Ν	152	161	167	203	683	276	285	298	322	1181	1864
0 bottles	%	49.8	53.0	56.4	66.1	56.4	91.1	92.8	93.1	97.6	93.7	75.4
1-2 bottles	N	54.0	55.0	58.0	58.0	225.0	21.0	21.0	20.0	7.0	69.0	294.0
1 2 001100	%	17.7	18.1	19.6	18.9	18.6	6.9	6.8	6.3	2.1	5.5	11.9
	Ν	50	51	37	24	162	3	1	1	1	6	168
3-4 bottles	%	16.4	16.8	12.5	7.8	13.4	1.0	0.3	0.3	0.3	0.5	6.8
More than 4	Ν	49	37	34	22	142	3	0	1	0	4	146
bottles	%	16.1	12.2	11.5	7.2	11.7	1.0	0.0	0.3	0.0	0.3	5.9

#### Table 4.1. Amount of beer consumed during the previous week by sex and age

# Table 4.2. Amount of strong alcohol consumed during the previous week by sex and age

Amoun	t of porti	ions (=50	) ml) of s	strong al	lcohol,	spirits	consur	ned du	ring the	previous	s week	
				Male					Female			
		25-34	35-44	45-54	55-65	bரஜ Total	25-34	35-44	45-54	55-65	<i>სულ</i> Total	Total
Number of respon	ndents	305	304	296	307	1212	303	307	320	330	1260	2472
0 portion	Ν	248	231	222	252	953	287	287	305	318	1197	2150
0 portion	%	81.3	76.0	75.0	82.1	78.6	94.7	93.5	95.3	96.4	95.0	87.0
1-2 portions	Ν	13	27	21	14	75	6	8	9	10	33	108
	%	4.3	8.9	7.1	4.6	6.2	2.0	2.6	2.8	3.0	2.6	4.4
3-4 portions	Ν	18	22	21	17	78	6	7	2	1	16	94
5-4 portions	%	5.9	7.2	7.1	5.5	6.4	2.0	2.3	0.6	0.3	1.3	3.8
. 4 partiana	Ν	26	24	32	24	106	4	5	4	1	14	120
> 4 portions	%	8.5	7.9	10.8	7.8	8.7	1.3	1.6	1.3	0.3	1.1	4.9

		An	nount of	wine co	nsumed	during	the pre	vious we	eek			
				Male					Female			Total
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	TOTAL
Number of res	pondents	305	304	296	307	1212	303	307	320	330	1260	2472
0 portion	Ν	219	194	180	192	785	274	266	279	288	1107	1892
	%	71.8	63.8	60.8	62.5	64.8	90.4	86.6	87.2	87.3	87.9	76.5
1.2 portions	Ν	8	11	11	13	43	16	20	25	35	96	139
1-2 portions	%	2.6	3.6	3.7	4.2	3.5	5.3	6.5	7.8	10.6	7.6	5.6
	N	16	20	18	19	73	5	13	10	4	32	105
3-4 portions	%	5.2	6.6	6.1	6.2	6.0	1.7	4.2	3.1	1.2	2.5	4.2
> 4 portions	Ν	62	79	87	83	311	8	8	6	3	25	336
> 4 portions	%	20.3	26.0	29.4	27.0	25.7	2.6	2.6	1.9	0.9	2.0	13.6

Table 4.3. Amount of wine consumed during the previous week by sex and age

Table 4.4. Amount of drinks consumed during the previous week by sex and age

				Alcoho	during	the las	st week					
				Male					Female			Total
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	Total
Number of respond	ents	305	304	296	307	1212	303	307	320	330	1260	2472
No alcohol	N	105	106	98	130	439	241	233	249	275	998	1437
consumption	%	34.4	34.9	33.1	42.3	36.2	79.5	75.9	77.8	83.3	79.2	58.1
0-6 units of	Ν	116	95	97	92	400	54	69	65	53	241	641
alcohol	%	38.0	31.3	32.8	30.0	33.0	17.8	22.5	20.3	16.1	19.1	25.9
7-14 units of	Ν	52	72	62	57	243	5	5	6	2	18	261
alcohol	%	17.0	23.7	20.9	18.6	20.0	1.7	1.6	1.9	0.6	1.4	10.6
> 14 units of	N	32	31	39	28	130	3	0	0	0	3	133
alcohol	%	10.5	10.2	13.2	9.1	10.7	1.0	0.0	0.0	0.0	0.2	5.4

	Freque	ency of a	drinking	six glas	ses or b	ottles	of alcoh	nol, or m	ore at o	nce		
				Male					Female			<b>—</b>
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	Total
Number of respor	ndents	305	304	296	307	1212	303	307	320	330	1260	2472
Never	N	48	45	47	70	210	280	281	287	322	1170	1380
	%	15.7	14.8	15.9	22.8	17.3	92.4	91.5	89.7	97.6	92.9	55.8
< once a month	N	178	167	152	141	638	19	25	26	6	76	714
	%	58.4	54.9	51.4	45.9	52.6	6.3	8.1	8.1	1.8	6.0	28.9
Once a month	N	40	40	38	51	169	4	0	4	0	8	177
Once a monun	%	13.1	13.2	12.8	16.6	13.9	1.3	0.0	1.3	0.0	0.6	7.2
Once a week	Ν	36	42	50	32	160	0	0	0	0	0	160
Once a week	%	11.8	13.8	16.9	10.4	13.2	0.0	0.0	0.0	0.0	0.0	6.5
Daily or almost	Ν	2	7	7	11	27	0	0	1	0	1	28
daily	%	0.7	2.3	2.4	3.6	2.2	0.0	0.0	0.3	0.0	0.1	1.1
he sufficient data	Ν	1	3	2	2	8	0	1	2	2	5	13
Insufficient data	%	0.3	1.0	0.7	0.7	0.7	0.0	0.3	0.6	0.6	0.4	0.5

Table 4.5. Frequency of drinking six glasses or bottles of alcohol, or more at once by sex and age

## Table 4.6. Frequency of drinking strong alcohol, spirits by sex and age

			How ofte	en do yo	ou usual	ly have	e strong	spirits?	)			
				Male					Female			Total
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	Τυται
Number of respond	dents	305	304	296	307	1212	303	307	320	330	1260	2472
Never	Ν	33	26	33	51	143	176	171	201	216	764	907
Never	%	10.8	8.6	11.1	16.6	11.8	58.1	55.7	62.8	65.5	60.6	36.7
A few times a	Ν	128	121	92	113	454	116	127	110	104	457	911
year	%	42.0	39.8	31.1	36.8	37.5	38.3	41.4	34.4	31.5	36.3	36.9
2-3 times a	Ν	111	111	125	103	450	10	6	3	5	24	474
month	%	36.4	36.5	42.2	33.6	37.1	3.3	2.0	0.9	1.5	1.9	19.2
Ones a weak	Ν	18	29	27	11	85	1	2	4	1	8	93
Once a week	%	5.9	9.5	9.1	3.6	7.0	0.3	0.7	1.3	0.3	0.6	3.8
2-3 times a week	Ν	15	9	14	19	57	0	0	0	1	1	58
2-5 times a week	%	4.9	3.0	4.7	6.2	4.7	0.0	0.0	0.0	0.3	0.1	2.3
On we also a da	Ν	0.0	1.0	2.0	1.0	4.0	0.0	0.0	0.0	0.0	0.0	4.0
On weekends	%	0.0	0.3	0.7	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.2
Deily	Ν	0.0	5.0	2.0	7.0	14.0	0.0	0.0	0.0	0.0	0.0	14.0
Daily	%	0.0	1.6	0.7	2.3	1.2	0.0	0.0	0.0	0.0	0.0	0.6
Insufficient data	Ν	0	2	1	2	5	0	1	2	3	6	11
mounicient data	%	0.0	0.7	0.3	0.7	0.4	0.0	0.3	0.6	0.9	0.5	0.4

			How	often d	o you u	sually	have wi	ne?				
				Male					Female			
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	Total
Number of responde	nts	305	304	296	307	1212	303	307	320	330	1260	2472
	Ν	19	13	15	21	68	108	88	108	127	431	499
Never	%	6.2	4.3	5.1	6.8	5.6	35.6	28.7	33.8	38.5	34.2	20.2
A few times a year	Ν	114	95	72	98	379	176	187	188	176	727	1106
A lew lines a year	%	37.4	31.3	24.3	31.9	31.3	58.1	60.9	58.8	53.3	57.7	44.7
2-3 times a month	Ν	128	139	139	131	537	15	25	15	12	67	604
2-3 times a month	%	42.0	45.7	47.0	42.7	44.3	5.0	8.1	4.7	3.6	5.3	24.4
	Ν	27	33	37	25	122	2	6	4	5	17	139
Once a week	%	8.9	10.9	12.5	8.1	10.1	0.7	2.0	1.3	1.5	1.3	5.6
	Ν	14	14	24	19	71	1	0	3	5	9	80
2-3 times a week	%	4.6	4.6	8.1	6.2	5.9	0.3	0.0	0.9	1.5	0.7	3.2
Or was also as de	Ν	1	2	4	1	8	0	0	0	0	0	8
On weekends	%	0.3	0.7	1.4	0.3	0.7	0.0	0.0	0.0	0.0	0.0	0.3
	Ν	2	6	3	11	22	1	0	0	3	4	26
Daily	%	0.7	2.0	1.0	3.6	1.8	0.3	0.0	0.0	0.9	0.3	1.1
	Ν	0	2	2	1	5	0	1	2	2	5	10
Insufficient data	%	0.0	0.7	0.7	0.3	0.4	0.0	0.3	0.6	0.6	0.4	0.4

Table 4.7. Frequency of drinking wine by sex and age

## Table 4.8. Frequency of drinking beer by sex and age

			Но	w often	do you ι	usually	have be	er?				
				Male	0	0		1	Female	1		<b>.</b>
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	Total
Number of responde	ents	305	304	296	307	1212	303	307	320	330	1260	2472
	Ν	25	26	26	43	120	170	163	189	216	738	858
Never	%	8.2	8.6	8.8	14.0	9.9	56.1	53.1	59.1	65.5	58.6	34.7
	Ν	85	67	69	107	328	99	107	103	98	407	735
A few times a year	%	27.9	22.0	23.3	34.9	27.1	32.7	34.9	32.2	29.7	32.3	29.7
	Ν	86	101	94	87	368	21	22	15	9	67	435
2-3 times a month	%	28.2	33.2	31.8	28.3	30.4	6.9	7.2	4.7	2.7	5.3	17.6
	Ν	40	35	45	28	148	8	9	6	2	25	173
Once a week	%	13.1	11.5	15.2	9.1	12.2	2.6	2.9	1.9	0.6	2.0	7.0
2-3 times a week	Ν	34	40	30	19	123	2	5	1	3	11	134
2-3 times a week	%	11.1	13.2	10.1	6.2	10.1	0.7	1.6	0.3	0.9	0.9	5.4
On weakenda	Ν	16.0	14.0	19.0	10.0	59.0	1.0	0.0	2.0	0.0	3.0	62.0
On weekends	%	5.2	4.6	6.4	3.3	4.9	0.3	0.0	0.6	0.0	0.2	2.5
Della	Ν	19.0	19.0	12.0	12.0	62.0	2.0	0.0	1.0	0.0	3.0	65.0
Daily	%	6.2	6.3	4.1	3.9	5.1	0.7	0.0	0.3	0.0	0.2	2.6
	Ν	0	2	1	1	4	0	1	3	2	6	10
Insufficient data	%	0.0	0.7	0.3	0.3	0.3	0.0	0.3	0.9	0.6	0.5	0.4

# **Results of Indicators**

Indicator		Male	,		Fema	le	Total		
Indicator	%	Mean	St Dev	%	Mean	St Dev	%	Mean	St Dev
Primary indicators									
Average amount of alcohol (units) consumed during the last week		5.5	7.8		0.6	1.7		3.0	6.1
<ul> <li>Average amount of strong alcohol (units) consumed during the last week</li> </ul>		1.1	3.0		0.2	0.8		0.6	2.2
<ul> <li>Average amount of wine (units) consumed during the last week</li> </ul>		2.8	5.3		0.3	1.1		1.5	4.0
<ul> <li>Average amount of beer (units) consumed during the last week</li> </ul>		1.6	2.5		0.1	0.6		0.8	2.0
<ul> <li>Prevalence of respondents have not drink any alcohol during the last week</li> </ul>	36.2			79.2			58.1		
<ul> <li>Prevalence of respondents consumed 0-6 units of alcohol during the last week</li> </ul>	33.0			19.1			25.9		
<ul> <li>Prevalence of respondents consumed 7-14 units of alcohol during the last week</li> </ul>	20.0			1.4			10.6		
Prevalence of respondents consumed more than 14 units of alcohol during the last week	10.7			0.2			5.4		
Prevalence of respondents who has never drunk six glasses or bottles of alcohol, or more, at once	17.4			93.2			56.1		
<ul> <li>Prevalence of respondents who has rarely (once a month or less) drunk six glasses or bottles of alcohol, or more, at once</li> </ul>	67.0			6.7			36.2		
<ul> <li>Prevalence of respondents who has regularly (once a week) drunk six glasses or bottles of alcohol, or more, at once</li> </ul>	13.3			0.0			6.5		
• Prevalence of respondents who has daily drink six glasses or bottles of alcohol, or more, at once	2.3			0.1			1.2		
Secondary indicators									
<ul> <li>Prevalence of respondents who has never drink strong spirits</li> </ul>	11.8			60.9			36.9		
<ul> <li>Prevalence of respondents who has rarely drink strong spirits (a few times a year and 2-3 times a month)</li> </ul>	74.9			38.3			56.3		
<ul> <li>Prevalence of respondents who has regularly drink strong spirits (once a week and 2-3 times a week)</li> </ul>	11.7			0.7			6.2		
<ul> <li>Prevalence of respondents who has drink strong spirits on weekends</li> </ul>	0.3			0.0			0.2		
<ul> <li>Prevalence of respondents who has daily drink strong spirits</li> </ul>	1.2			0.0			0.6		
<ul> <li>Prevalence of respondents who has never drink wine</li> </ul>	5.6			34.3			20.3		
<ul> <li>Prevalence of respondents who has rarely drink wine (a few times a year and 2-3 times a month)</li> </ul>	75.9			63.2			69.4		
Prevalence of respondents who has regularly drink wine (once a week and 2-3 times a week)	16.0			2.1			8.8		
<ul> <li>Prevalence of respondents who has drink wine on weekends</li> </ul>	0.7			0.0			0.3		
Prevalence of respondents who has daily drink wine	1.8			0.3			1.1		
Prevalence of respondents who has never drink beer	9.9			58.9			34.8		
<ul> <li>Prevalence of respondents who has rarely drink beer (a few times a year and 2-3 times a month)</li> </ul>	57.7			35.8			47.6		
• Prevalence of respondents who has regularly drink beer (once a week and 2-3 times a week)	22.5			2.9			12.4		
<ul> <li>Prevalence of respondents who has drink beer on weekends</li> </ul>	4.9			0.2			2.5		
Prevalence of respondents who has daily drink beer	5.1			0.2			2.6		

# ANTHROPOMETRY MEASUREMENTS

Average data			Male					Female			Total
Average data	25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	Total
Height (cm)	178.9	177.7	177.1	175.5	177.3	165.7	164.7	164.6	162.2	164.3	170.6
Weight	83.7	88.0	89.8	86.2	86.9	63.8	73.7	78.2	80.5	74.3	80.4

#### Table 5.1. Mean height and weight data of the respondents, by age groups and gender

 Table 5.2. Mean body mass index of the respondents, by age groups and gender

BMI			Male					Female	9		Tatal
BIMI	25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	Total
Number of respondents	26.1	27.8	28.6	28.0	27.6	23.3	27.2	28.9	30.6	27.6	27.6

Table 5.3. Proportion the overweight (BMI $\ge$ 25) and the obese (BMI $\ge$ 30) among the respondents by a	ige
groups and gender	

BMI				Male					Female	)		Total
Dim		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	Total
Number of responde	nts	300	299	294	306	1199	300	307	319	324	1250	2449
10.5	Ν	1	3	4	1	9	21	4	4	3	32	41
< 18.5	%	0.3	1.0	1.4	0.3	0.8	7.0	1.3	1.3	0.9	2.6	1.7
Normal weight	Ν	131	94	72	86	383	197	131	74	48	450	833
18.5 - 24.9	%	43.7	31.4	24.5	28.1	31.9	65.7	42.7	23.2	14.8	36.0	34.0
Overweight	N	116	116	116	134	482	61	85	125	102	373	855
25.0 - 29.9	%	38.7	38.8	39.5	43.8	40.2	20.3	27.7	39.2	31.5	29.8	34.9
Obesity	N	49	81	98	80	308	21	72	102	154	349	657
30.0 - 39.9	%	16.3	27.1	33.3	26.1	25.7	7.0	23.5	32.0	47.5	27.9	26.8
≥ 40	N	3	5	4	5	17	0	15	14	17	46	63
- +0	%	1.0	1.7	1.4	1.6	1.4	0.0	4.9	4.4	5.2	3.7	2.6

\*pregnant women are excluded.

#### Table 5.4. Mean waist and hip circumference, and WHR of the respondents by age groups and gender

			Male					Female			
Average data	25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	Total
Hip circumference (cm)	102.2	105.6	107.2	106.2	105.3	99.3	107.8	111.3	115.6	108.7	107.0
W circumference (cm)	93.8	99.7	102.3	101.4	99.3	79.7	88.2	93.7	98.3	90.2	94.6
Waist to hip ratio - WHR	0.92	0.95	0.96	0.96	0.94	0.81	0.82	0.84	0.85	0.83	0.89

Table 5.5. Elevated waist circumference of the respondents by age groups and gender

	,			Male					Female	l		Tatal
Waist circumference (cm	)	25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	Total
N		301	299	294	306	1200	300	307	320	326	1253	2453
≥ 102 cm for men,	Ν	80	117	133	135	465	68	148	213	253	682	1147
≥ 88 cm for women	%	26.6	39.1	45.2	44.1	38.8	22.7	48.2	66.6	77.6	54.4	46.8

Waist/hip ratio				Male					Female			Tatal
WHR		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	Total
Number of respondents		301	299	294	306	1200	300	307	320	326	1253	2453
≤ 95 for men	Ν	217	182	163	160	722	162	138	110	82	492	1214
≤ 80 for women	%	72.1	60.9	55.4	52.3	60.2	54.0	45.0	34.4	25.2	39.3	49.5
0.96-1.0 for men	Ν	42	43	68	56	209	74	94	90	87	345	554
0.81-0.85 for women	%	14.0	14.4	23.1	18.3	17.4	24.7	30.6	28.1	26.7	27.5	22.6
> 1.0 for men	Ν	42	74	63	90	269	64	75	120	157	416	685
> 0.85 for women	%	14.0	24.7	21.4	29.4	22.4	21.3	24.4	37.5	48.2	33.2	27.9

# **Results of Indicators**

		Male	1		Femal	е	Total		
Indicator	%	Mean	St Dev	%	Mean	St Dev	%	Mean	St Dev
Primary indicators									
<ul> <li>Mean and standard deviation of BMI</li> </ul>		27.6	4.75		27.6	6.13		27.6	5.50
<ul> <li>Prevalence of obesity (BMI          <u>&gt;</u> 30)</li> </ul>	27.1			31.6			29.4		
Mean and standard deviation of waist circumference		99.3	13.71		90.2	15.09		94.6	15.13
Secondary indicators									
<ul> <li>Mean and standard deviation of waist/hip ratio</li> </ul>		0.94	0.09		0.83	0.09		0.89	0.11
<ul> <li>Prevalence of waist/hip ratio &gt; 0.95 for men and &gt; 0.80 for women</li> </ul>	39.8			60.7			50.5		
<ul> <li>Mean and standard deviation of height</li> </ul>		177.3	6.96		164.3	6.21		170.6	9.26
<ul> <li>Mean and standard deviation of weight</li> </ul>		86.9	16.00		74.3	16.13		80.4	17.26
Prevalence of categories of BMI:									
• Thin < 18.5	0.8			2.6			1.7		
Normal range 18.5-24.9	31.9			36.0			34.0		
Grade 1 overweight 25-29.9	40.2			29.8			34.9		
Grade 2 overweight 30-39.9	25.7			27.9			26.8		
<ul> <li>Grade 3 overweight &gt; 40</li> </ul>	1.4			3.7			2.6		

# PHYSICAL ACTIVITY

			Do	o you ha	ve possi	ibility o	f exercis	se?				
				Male					Female			
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	Total
Number of responde	ents	305	304	296	307	1212	303	307	320	330	1260	2472
Yes	Ν	300	286	276	266	1128	297	288	301	274	1160	2288
165	%	98.4	94.1	93.2	86.6	93.1	98.0	93.8	94.1	83.0	92.1	92.6
I cannot exercise	Ν	2	4	13	26	45	1	14	19	44	78	123
because of illness	%	0.7	1.3	4.4	8.5	3.7	0.3	4.6	5.9	13.3	6.2	5.0
I cannot exercise because of	Ν	1	10	5	10	26	1	1	0	5	7	33
disability	%	0.3	3.3	1.7	3.3	2.1	0.3	0.3	0.0	1.5	0.6	1.3
Insufficient data	Ν	2	4	2	5	13	4	4	0	7	15	28
mounicient data	%	0.7	1.3	0.7	1.6	1.1	1.3	1.3	0.0	2.1	1.2	1.1

#### Table 6.1. Prevalence of respondents who have possibility of exercise

 Table 6.2. Number of days during the last seven days when any vigorous physical activities was practiced by sex and age

Number	of da	ys during	g the las	t seven o	days wh	en any	vigorou	us physic	cal activ	ities was	practic	ed
				Male					Female			Total
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	Τοται
Number of respondents		305	304	296	307	1212	303	307	320	330	1260	2472
0 day	N	273	269	273	288	1103	294	296	314	315	1219	2322
0 day	%	89.5	88.5	92.2	93.8	91.0	97.0	96.4	98.1	95.5	96.7	93.9
1 dov	Ν	3	1	2	1	7	0	2	0	1	3	10
1 day %	%	1.0	0.3	0.7	0.3	0.6	0.0	0.7	0.0	0.3	0.2	0.4
2-3 days	Ν	9	8	7	5	29	4	3	4	2	13	42
2-3 days	%	3.0	2.6	2.4	1.6	2.4	1.3	1.0	1.3	0.6	1.0	1.7
4-5 days	Ν	2	1	5	3	11	1	1	0	1	3	14
4-5 Uays	%	0.7	0.3	1.7	1.0	0.9	0.3	0.3	0.0	0.3	0.2	0.6
6-7 days	Ν	16	23	9	7	55	4	4	2	4	14	69
0-7 uays	%	5.2	7.6	3.0	2.3	4.5	1.3	1.3	0.6	1.2	1.1	2.8
Insufficient	N	2	2	0	3	7	0	1	0	7	8	15
data	%	0.7	0.7	0.0	1.0	0.6	0.0	0.3	0.0	2.1	0.6	0.6

		Time in	min (dai	ly avera	ge) spen	t doing	vigorou	s physic	al activi	ty		
				Male					Female			<b></b>
	25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	Total	
Number of respondents		305	304	296	307	1212	303	307	320	330	1260	2472
0 minute	Ν	273	269	273	288	1103	294	296	314	315	1219	2322
0 minute	%	89.5	88.5	92.2	93.8	91.0	97.0	96.4	98.1	95.5	96.7	93.9
Up to 10	Ν	3	6	3	1	13	2	1	0	1	4	17
minutes	%	1.0	2.0	1.0	0.3	1.1	0.7	0.3	0.0	0.3	0.3	0.7
	Ν	3	3	2	0	8	1	3	3	1	8	16
11-20 minutes	%	1.0	1.0	0.7	0.0	0.7	0.3	1.0	0.9	0.3	0.6	0.6
21-30 minutes	Ν	6	4	2	2	14	2	3	2	4	11	25
21-30 minutes	%	2.0	1.3	0.7	0.7	1.2	0.7	1.0	0.6	1.2	0.9	1.0
31-59 minutes	Ν	4	8	5	5	22	0	1	0	1	2	24
31-59 minutes	%	1.3	2.6	1.7	1.6	1.8	0.0	0.3	0.0	0.3	0.2	1.0
≥ 60 minutes	Ν	14	12	11	8	45	4	2	1	1	8	53
	%	4.6	3.9	3.7	2.6	3.7	1.3	0.7	0.3	0.3	0.6	2.1
Insufficient data	Ν	2	2	0	3	7	0	1	0	7	8	15
msunicient data	%	0.7	0.7	0.0	1.0	0.6	0.0	0.3	0.0	2.1	0.6	0.6

Table 6.3. Time in min (daily average) spent doing vigorous physical activity by sex and age

 Table 6.4. Number of days during the last seven days when any moderate physical activities was practiced by sex and age

Number of	days	during	the last s	seven da	ays wher	n any m	oderate	physica	l activitie	es was p	oractico	ed
				Male			Female					
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	Total
Number of respondents		305	304	296	307	1212	303	307	320	330	1260	2472
	Ν	198	165	172	190	725	161	142	165	168	636	1361
0 day	%	64.9	54.3	58.1	61.9	59.8	53.1	46.3	51.6	50.9	50.5	55.1
1 day =	Ν	14	20	23	16	73	23	16	22	18	79	152
	%	4.6	6.6	7.8	5.2	6.0	7.6	5.2	6.9	5.5	6.3	6.1
2-3 days	Ν	30	47	34	39	150	43	68	54	66	231	381
2-3 uays	%	9.8	15.5	11.5	12.7	12.4	14.2	22.1	16.9	20.0	18.3	15.4
4-5 days	Ν	18	13	27	21	79	13	20	23	22	78	157
4-5 Uays	%	5.9	4.3	9.1	6.8	6.5	4.3	6.5	7.2	6.7	6.2	6.4
67 dava	Ν	42	57	40	37	176	63	59	56	49	227	403
6-7 days	%	13.8	18.8	13.5	12.1	14.5	20.8	19.2	17.5	14.8	18.0	16.3
	Ν	3	2	0	4	9	0	2	0	7	9	18
Insufficient data	%	1.0	0.7	0.0	1.3	0.7	0.0	0.7	0.0	2.1	0.7	0.7

	Tir	ne in mi	in (daily	average	e) spent	doing	vigorou	ıs physi	cal activ	rity		
				Male				1	Female		-	
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	Total
Number of respondents		305	304	296	307	1212	303	307	320	330	1260	2472
	Ν	198	165	172	190	725	161	142	165	168	636	1361
0 minute	%	64.9	54.3	58.1	61.9	59.8	53.1	46.3	51.6	50.9	50.5	55.1
Lin to 10 minutes	Ν	0	0	0	0	0	1	0	0	1	2	2
Up to 10 minutes	%	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.3	0.2	0.1
11-20 minutes	Ν	1	1	1	0	3	3	3	1	0	7	10
TT-20 minutes	%	0.3	0.3	0.3	0.0	0.2	1.0	1.0	0.3	0.0	0.6	0.4
21-30 minutes	Ν	6	7	4	7	24	14	11	13	11	49	73
21 00 minutes	%	2.0	2.3	1.4	2.3	2.0	4.6	3.6	4.1	3.3	3.9	3.0
31-59 წუთი	Ν	3	1	1	1	6	1	3	0	2	6	12
31-59 minutes	%	1.0	0.3	0.3	0.3	0.5	0.3	1.0	0.0	0.6	0.5	0.5
> 60 minutes	Ν	94	127	118	105	444	123	146	141	141	551	995
≥ 60 minutes	%	30.8	41.8	39.9	34.2	36.6	40.6	47.6	44.1	42.7	43.7	40.3
Insufficient data	Ν	3	3	0	4	10	0	2	0	7	9	19
	%	1.0	1.0	0.0	1.3	0.8	0.0	0.7	0.0	2.1	0.7	0.8

 Table 6.5. Time in min (daily average) spent doing moderate physical activity by sex and age

 Table 6.6. Number of days during the last seven days when any low-intensity physical activities (walking) was practiced by sex and age

Number of da	ays d	luring th	e last se	even day	s when a	any m	oderat	e physic	al activi	ties was	practi	iced
				Male					Female			
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	Total
Number of respondents		305	304	296	307	1212	303	307	320	330	1260	2472
0 day	Ν	18	34	31	23	106	22	19	31	31	103	209
	%	5.9	11.2	10.5	7.5	8.7	7.3	6.2	9.7	9.4	8.2	8.5
1 day	Ν	8	10	10	8	36	9	9	9	16	43	79
	%	2.6	3.3	3.4	2.6	3.0	3.0	2.9	2.8	4.8	3.4	3.2
2-3 days	N	34	35	34	41	144	37	34	44	53	168	312
2-3 Udys	%	11.1	11.5	11.5	13.4	11.9	12.2	11.1	13.8	16.1	13.3	12.6
4-5 days	N	40	25	41	40	146	47	52	55	52	206	352
4-5 Udys	%	13.1	8.2	13.9	13.0	12.0	15.5	16.9	17.2	15.8	16.3	14.2
6-7 days	Ν	202	198	180	191	771	188	190	181	171	730	1501
0-7 days	%	66.2	65.1	60.8	62.2	63.6	62.0	61.9	56.6	51.8	57.9	60.7
	Ν	3	2	0	4	9	0	3	0	7	10	19
Insufficient data	%	1.0	0.7	0.0	1.3	0.7	0.0	1.0	0.0	2.1	0.8	0.8

		Time in r	nin (dail	y averag	e) spent	doing	vigorou	s physic	al activit	y		
				Male					Female			
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	Total
Number of respondents		305	304	296	307	1212	303	307	320	330	1260	2472
0 minute	Ν	18	34	30	23	105	22	19	31	31	103	208
0 minute	%	5.9	11.2	10.1	7.5	8.7	7.3	6.2	9.7	9.4	8.2	8.4
Up to 10 minutes	N	0	0	1	0	1	0	1	0	1	2	3
Op to 10 minutes	%	0.0	0.0	0.3	0.0	0.1	0.0	0.3	0.0	0.3	0.2	0.1
11-20 minutes	Ν	16	27	19	26	88	17	15	23	22	77	165
11-20 minutes	%	5.2	8.9	6.4	8.5	7.3	5.6	4.9	7.2	6.7	6.1	6.7
21-30 minutes	Ν	38	48	47	41	174	41	47	60	55	203	377
21-30 minutes	%	12.5	15.8	15.9	13.4	14.4	13.5	15.3	18.8	16.7	16.1	15.3
31-59 minutes	Ν	4	6	6	4	20	8	7	6	6	27	47
ST-59 minutes	%	1.3	2.0	2.0	1.3	1.7	2.6	2.3	1.9	1.8	2.1	1.9
> co minutos	N	225	187	192	208	812	215	215	200	208	838	1650
≥ 60 minutes	%	73.8	61.5	64.9	67.8	67.0	71.0	70.0	62.5	63.0	66.5	66.7
Insufficient data	N	4	2	1	5	12	0	3	0	7	10	22
insumcient data	%	1.3	0.7	0.3	1.6	1.0	0.0	1.0	0.0	2.1	0.8	0.9

# Table 6.7. Time in min (daily average) spent doing low-intensity physical activity (walking) by sex and age

 Table 6.8. Time in min (daily average) spent sitting by sex and age

			Time	e in min	(daily av	erage)	spent s	itting				
				Male			Female					
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	Total
Number of respondents		305	304	296	307	1212	303	307	320	330	1260	2472
< 60 min	Ν	1	2	2	3	8	1	3	1	2	7	15
	%	0.3	0.7	0.7	1.0	0.7	0.3	1.0	0.3	0.6	0.6	0.6
60-179 min	Ν	36	48	29	41	154	56	65	69	50	240	394
00-179 min	%	11.8	15.8	9.8	13.4	12.7	18.5	21.2	21.6	15.2	19.0	15.9
180-359 min	Ν	130	95	100	95	420	130	118	115	123	486	906
180-339 1111	%	42.6	31.3	33.8	30.9	34.7	42.9	38.4	35.9	37.3	38.6	36.7
> 200 minutes	Ν	127	153	161	154	595	108	110	125	138	481	1076
≥ 360 minutes	%	41.6	50.3	54.4	50.2	49.1	35.6	35.8	39.1	41.8	38.2	43.5
Insufficient data	Ν	11	6	4	14	35	8	11	10	17	46	81
mouncient data	%	3.6	2.0	1.4	4.6	2.9	2.6	3.6	3.1	5.2	3.7	3.3

Leisure ti	me j	physical	activity	(at least	t 30 min)	leadin	g to sho	rtness o	f breath	or pers	oiration	1
				Male					Female			
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	Total
Number of respondents		305	304	296	307	1212	303	307	320	330	1260	2472
Daily	Ν	22	10	6	14	52	9	5	4	7	25	77
Dany	%	7.2	3.3	2.0	4.6	4.3	3.0	1.6	1.3	2.1	2.0	3.1
4-6 times a week	N	9	5	4	2	20	0	3	1	0	4	24
4-0 lines a week	%	3.0	1.6	1.4	0.7	1.7	0.0	1.0	0.3	0.0	0.3	1.0
2-3 times a week	Ν	22	14	6	5	47	14	5	8	3	30	77
2-3 times a week	%	7.2	4.6	2.0	1.6	3.9	4.6	1.6	2.5	0.9	2.4	3.1
Once a week	Ν	11	5	1	4	21	1	2	3	0	6	27
Once a week	%	3.6	1.6	0.3	1.3	1.7	0.3	0.7	0.9	0.0	0.5	1.1
2-3 times a month	Ν	21	9	12	8	50	5	4	1	8	18	68
2-3 times a month	%	6.9	3.0	4.1	2.6	4.1	1.7	1.3	0.3	2.4	1.4	2.8
A few times a year	N	213	250	260	262	985	266	272	295	299	1132	2117
or less	%	69.8	82.2	87.8	85.3	81.3	87.8	88.6	92.2	90.6	89.8	85.6
Insufficient data	Ν	7	11	7	12	37	8	16	8	13	45	82
insullicient data	%	2.3	3.6	2.4	3.9	3.1	2.6	5.2	2.5	3.9	3.6	3.3

 Table 6.9. Leisure time physical activity (at least 30 min) leading to shortness of breath or perspiration by sex and age

#### Table 6.10. How physical strenuous is respondents work by sex and age

			How ph	ysical si	trenuou	s is res	pondent	ts work				
				Male					Female			Total
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	TOTAL
Number of respondents		305	304	296	307	1212	303	307	320	330	1260	2472
Very light (mainly	N	77	85	86	65	313	74	95	87	74	330	643
sitting)	%	25.2	28.0	29.1	21.2	25.8	24.4	30.9	27.2	22.4	26.2	26.0
Light (mainly	N	62	53	43	51	209	68	71	63	55	257	466
walking)	%	20.3	17.4	14.5	16.6	17.2	22.4	23.1	19.7	16.7	20.4	18.9
Medium (lifting,	Ν	28	44	28	21	121	19	15	19	13	66	187
carrying light loads)	%	9.2	14.5	9.5	6.8	10.0	6.3	4.9	5.9	3.9	5.2	7.6
Heavy manual work (climbing,	Ν	14	12	5	5	36	3	1	1	2	7	43
carrying heavy loads)	%	4.6	3.9	1.7	1.6	3.0	1.0	0.3	0.3	0.6	0.6	1.7
	Ν	124	110	134	165	533	139	125	150	186	600	1133
Insufficient data	%	40.7	36.2	45.3	53.7	44.0	45.9	40.7	46.9	56.4	47.6	45.8

## FOOD CONSUMPPTION

# Table 7.1. Number and percentage of respondents according to the type of oil or fat usually used in cooking

		What kin	d of fat d	o you ma	stly use	for food	preparat	tion at ho	me?			
				Male					Female			Total
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	
Number of responden	ts	305	304	296	307	1212	303	307	320	330	1260	2472
Vegetable oil	Ν	273	270	274	286	1103	286	279	304	313	1182	2285
Vegetable on	%	89.5	88.8	92.6	93.2	91.0	94.4	90.9	95.0	94.8	93.8	92.4
Margarine	Ν	0	3	0	1	4	3	4	5	2	14	18
Marganne	%	0.0	1.0	0.0	0.3	0.3	1.0	1.3	1.6	0.6	1.1	0.7
Butter or product	Ν	8	6	6	6	26	13	19	9	12	53	79
consisting mainly of butter	%	2.6	2.0	2.0	2.0	2.1	4.3	6.2	2.8	3.6	4.2	3.2
Lard or other animal fat	Ν	0	0	3	1	4	0	1	1	0	2	6
Lard of other animal fat	%	0.0	0.0	1.0	0.3	0.3	0.0	0.3	0.3	0.0	0.2	0.2
No fat at all	Ν	0	0	1	0	1	0	1	0	1	2	3
NO TAL AL AII	%	0.0	0.0	0.3	0.0	0.1	0.0	0.3	0.0	0.3	0.2	0.1
	Ν	18	21	12	11	62	0	0	0	0	0	62
I do not know	%	5.9	6.9	4.1	3.6	5.1	0.0	0.0	0.0	0.0	0.0	2.5
I do not usually	Ν	3	2	0	2	7	0	3	0	2	5	12
prepare food	%	1.0	0.7	0.0	0.7	0.6	0.0	1.0	0.0	0.6	0.4	0.5
Insufficient data	Ν	3	2	0	0	5	1	0	1	0	2	7
msuncient data	%	1.0	0.7	0.0	0.0	0.4	0.3	0.0	0.3	0.0	0.2	0.3

## Table 7.2. Breakfast by sex and age

				Do you ea	at breakfa	ast at all	1?					
				Male					Female			Total
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	TOLAI
Number of respondents		305	304	296	307	1212	303	307	320	330	1260	2472
Yes	N	235	243	240	276	994	208	207	240	281	936	1930
165	%	77.0	79.9	81.1	89.9	82.0	68.6	67.4	75.0	85.2	74.3	78.1
No	N	69	60	56	31	216	95	100	80	49	324	540
NO	%	22.6	19.7	18.9	10.1	17.8	31.4	32.6	25.0	14.8	25.7	21.8
Insufficient data	N	1	1	0	0	2	0	0	0	0	0	2
	%	0.3	0.3	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.1

			Но	w often do	o you prep	are food	at home	?				
				Male					Female			Total
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	TOTAL
Number of responde	ents	305	304	296	307	1212	303	307	320	330	1260	2472
Never	Ν	55	31	35	50	171	9	2	4	2	17	188
Never	%	18.03	10.2	11.82	16.29	14.11	2.97	0.651	1.25	0.606	1.349	7.605
A few times a year	Ν	5	10	8	11	34	3	3	0	1	7	41
A lew limes a year	%	1.6	3.3	2.7	3.6	2.8	1.0	1.0	0.0	0.3	0.6	1.7
2-3 times a month	Ν	1	0	1	1	3	2	1	1	2	6	9
2-3 times a month	%	0.3	0.0	0.3	0.3	0.2	0.7	0.3	0.3	0.6	0.5	0.4
Once a week	Ν	6	2	2	7	17	10	2	7	9	28	45
Once a week	%	2.0	0.7	0.7	2.3	1.4	3.3	0.7	2.2	2.7	2.2	1.8
2-3 times a week	Ν	52	53	59	59	223	58	78	85	111	332	555
2-3 times a week	%	17.0	17.4	19.9	19.2	18.4	19.1	25.4	26.6	33.6	26.3	22.5
Deilu	Ν	182	205	188	179	754	219	220	219	202	860	1614
Daily	%	59.7	67.4	63.5	58.3	62.2	72.3	71.7	68.4	61.2	68.3	65.3
Insufficient data	Ν	4	3	3	0	10	2	1	4	3	10	20
msunicient data	%	1.3	1.0	1.0	0.0	0.8	0.7	0.3	1.3	0.9	0.8	0.8

Table 7.3. Number and percentage of respondents by sex and age who have prepared food at home

			What	kind of fa	at do you	use on b	read mos	tly?				
				Male					Female			Total
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	TOLAI
Number of responden	ts	305	304	296	307	1212	303	307	320	330	1260	2472
None	Ν	130	121	129	149	529	123	135	145	149	552	1081
None	%	42.62	39.8	43.58	48.53	43.65	40.59	43.97	45.31	45.15	43.81	43.73
Managina	Ν	7	7	19	16	49	9	18	20	20	67	116
Margarine	%	2.3	2.3	6.4	5.2	4.0	3.0	5.9	6.3	6.1	5.3	4.7
Butter or product	Ν	8	2	4	2	16	12	10	11	22	55	71
consisting mainly of butter	%	2.6	0.7	1.4	0.7	1.3	4.0	3.3	3.4	6.7	4.4	2.9
Lard or other animal	Ν	0	0	1	0	1	0	0	0	1	1	2
fat	%	0.0	0.0	0.3	0.0	0.1	0.0	0.0	0.0	0.3	0.1	0.1
Buttor	Ν	156	171	143	140	610	159	143	142	136	580	1190
Butter	%	51.1	56.3	48.3	45.6	50.3	52.5	46.6	44.4	41.2	46.0	48.1
Insufficient data	Ν	4	3	0	0	7	0	1	2	2	5	12
insullcient data	%	1.3	1.0	0.0	0.0	0.6	0.0	0.3	0.6	0.6	0.4	0.5

Table 7.5. Number and percentage of respondents according to the type of milk usually used

				lf you dri	ink milk d	o you usu	ally use					
				Male					Female			Total
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	TOTAL
Number of responder	nts	305	304	296	307	1212	303	307	320	330	1260	2472
Whole milk (ordinary	Ν	62	62	70	81	275	63	81	76	98	318	593
cow's milk, about 4.3 % fat or more)	%	20.33	20.39	23.65	26.38	22.69	20.79	26.38	23.75	29.7	25.2 4	23.99
Consumer milk	Ν	48	33	25	32	138	56	38	48	23	165	303
(ordinary shop milk, about 3.9 % fat	%	15.7	10.9	8.4	10.4	11.4	18.5	12.4	15.0	7.0	13.1	12.3
Low-fat milk (about	Ν	2	2	3	1	8	3	1	7	5	16	24
1.9 % fat)	%	0.7	0.7	1.0	0.3	0.7	1.0	0.3	2.2	1.5	1.3	1.0
Skim milk (about	Ν	0	0	1	0	1	0	1	1	0	2	3
0.05 % fat)	%	0.0	0.0	0.3	0.0	0.1	0.0	0.3	0.3	0.0	0.2	0.1
I do not drink milk	Ν	192	205	196	193	786	181	186	186	204	757	1543
i do not drink milk	%	63.0	67.4	66.2	62.9	64.9	59.7	60.6	58.1	61.8	60.1	62.4
Insufficient data	Ν	1	2	1	0	4	0	0	2	0	2	6
insuncient data	%	0.3	0.7	0.3	0.0	0.3	0.0	0.0	0.6	0.0	0.2	0.2

 Table 7.6. Number and percentage of respondents according to the type of milk usually used in preparing milk products

			If you ea	t milk pro	ducts us	ually it is	prepared	using				
				Male					Female			Tatal
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	Total
Number of responden	ts	305	304	296	307	1212	303	307	320	330	1260	2472
Whole milk (ordinary	Ν	167	181	188	206	742	118	165	177	220	680	1422
cow's milk, about 4.3 % fat or more)	%	54.75	59.54	63.51	67.1	61.22	38.94	53.75	55.31	66.67	53.97	57.5 2
Consumer milk	Ν	100	85	79	70	334	134	103	109	69	415	749
(ordinary shop milk, about 3.9 % fat	%	32.8	28.0	26.7	22.8	27.6	44.2	33.6	34.1	20.9	32.9	30.3
Low-fat milk (about 1.9	Ν	3	3	1	1	8	7	2	6	6	21	29
% fat)	%	1.0	1.0	0.3	0.3	0.7	2.3	0.7	1.9	1.8	1.7	1.2
l do not eat milk	Ν	34	33	28	30	125	43	37	26	35	141	266
products	%	11.1	10.9	9.5	9.8	10.3	14.2	12.1	8.1	10.6	11.2	10.8
Incufficient data	Ν	1	2	0	0	3	1	0	2	0	3	6
Insufficient data	%	0.3	0.7	0.0	0.0	0.2	0.3	0.0	0.6	0.0	0.2	0.2

## Table 7.7. Salt consumption at the table

			Do yo	ou add sa	lt to your	meals a	t the table	e?				
				Male					Female			Total
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	TOLAT
Number of responden	ts	305	304	296	307	1212	303	307	320	330	1260	2472
Never	Ν	157	139	134	134	564	200	196	202	223	821	1385
Never	%	51.5	45.7	45.3	43.6	46.5	66.0	63.8	63.1	67.6	65.2	56.0
When the food is not	Ν	105	117	107	115	444	76	81	94	85	336	780
salty enough	%	34.4	38.5	36.1	37.5	36.6	25.1	26.4	29.4	25.8	26.7	31.6
Almost always before	Ν	38	45	52	55	190	25	29	22	22	98	288
tasting	%	12.5	14.8	17.6	17.9	15.7	8.3	9.4	6.9	6.7	7.8	11.7
Insufficient data	Ν	5	3	3	3	14	2	1	2	0	5	19
	%	1.6	1.0	1.0	1.0	1.2	0.7	0.3	0.6	0.0	0.4	0.8

## Table 7.8. Number and percentage of respondents according to the type of salt usually used

			What k	ind of sal	t is usual	lly used i	n your ho	me?				
				Male					Female			Total
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	TULAI
Number of responden	ts	305	304	296	307	1212	303	307	320	330	1260	2472
lodized salt	Ν	256	262	255	270	1043	263	269	267	282	1081	2124
louized sait	%	83.9	86.2	86.1	87.9	86.1	86.8	87.6	83.4	85.5	85.8	85.9
Noniodized salt	Ν	42	36	36	33	147	36	34	50	45	165	312
Noniouized Sait	%	13.8	11.8	12.2	10.7	12.1	11.9	11.1	15.6	13.6	13.1	12.6
Sea salt	Ν	0	0	0	0	0	0	0	0	0	0	0
Sea Sait	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Insufficient data	Ν	7	6	5	4	22	4	4	3	3	14	36
msunicient data	%	2.3	2.0	1.7	1.3	1.8	1.3	1.3	0.9	0.9	1.1	1.5

#### Table 7.9. Consumption of potato during the last week by sex and age

		<u>н спр</u> Н	low often		e last we	ek have yo	ou consur		toes?			
				Male					Female			Total
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	TULAI
Number of responde	ents	305	304	296	307	1212	303	307	320	330	1260	2472
Never N		15	16	16	22	69	30	33	33	37	133	202
Never	%	4.9	5.3	5.4	7.2	5.7	9.9	10.7	10.3	11.2	10.6	8.2
1-2 times	Ν	136	126	105	136	503	135	152	154	181	622	1125
1-2 times	%	44.6	41.4	35.5	44.3	41.5	44.6	49.5	48.1	54.8	49.4	45.5
3-5 times	Ν	131	144	157	129	561	119	102	115	96	432	993
3-5 times	%	43.0	47.4	53.0	42.0	46.3	39.3	33.2	35.9	29.1	34.3	40.2
6-7 times	Ν	20	14	18	16	68	15	20	17	15	67	135
6-7 times	%	6.6	4.6	6.1	5.2	5.6	5.0	6.5	5.3	4.5	5.3	5.5
Insufficient data	Ν	3	4	0	4	11	4	0	1	1	6	17
insuncient data	%	1.0	1.3	0.0	1.3	0.9	1.3	0.0	0.3	0.3	0.5	0.7

		How of	ten durin	g the last	week ha	ve you co	nsumed	rice/maca	roni?			
				Male					Female			Total
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	ΤΟΙΔΙ
Number of responden	ts	305	304	296	307	1212	303	307	320	330	1260	2472
Never	Ν	150	128	124	125	527	98	118	112	122	450	977
Never	%	49.18	42.11	41.89	40.72	43.48	32.34	38.44	35	36.97	35.71	39.52
1 O times	Ν	105	127	107	136	475	165	148	170	175	658	1133
1-2 times	%	34.4	41.8	36.1	44.3	39.2	54.5	48.2	53.1	53.0	52.2	45.8
3-5 times	Ν	44	43	62	42	191	35	38	29	29	131	322
3-5 times	%	14.4	14.1	20.9	13.7	15.8	11.6	12.4	9.1	8.8	10.4	13.0
C 7 times	Ν	3	2	3	0	8	1	3	8	3	15	23
6-7 times	%	1.0	0.7	1.0	0.0	0.7	0.3	1.0	2.5	0.9	1.2	0.9
Incufficient data	Ν	3	4	0	4	11	4	0	1	1	6	17
Insufficient data	%	1.0	1.3	0.0	1.3	0.9	1.3	0.0	0.3	0.3	0.5	0.7

Table 7.10. Consumption of rice/macaroni during the last week by sex and age

Table 7.11. Consumption of cereals during the last week by sex and age

		How of	iten during	the last we	ek have yo	ou consu	imed cere	eals (cornfl	akes, porri	dge)?		
				Male					Female			Total
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	TOTAL
Number o responden		305	304	296	307	1212	303	307	320	330	1260	2472
Never	Ν	177	173	155	174	679	140	147	155	146	588	1267
never	%	58.03	56.91	52.36	56.68	56.02	46.2	47.88	48.44	44.24	46.67	51.25
1-2 times	Ν	91	91	82	80	344	99	116	115	121	451	795
1-2 limes	%	29.8	29.9	27.7	26.1	28.4	32.7	37.8	35.9	36.7	35.8	32.2
3-5 times	Ν	25	23	42	35	125	45	36	39	48	168	293
3-5 times	%	8.2	7.6	14.2	11.4	10.3	14.9	11.7	12.2	14.5	13.3	11.9
0.7 times	Ν	9	13	17	14	53	15	8	10	14	47	100
6-7 times	%	3.0	4.3	5.7	4.6	4.4	5.0	2.6	3.1	4.2	3.7	4.0
Insufficient	Ν	3	4	0	4	11	4	0	1	1	6	17
data	%	1.0	1.3	0.0	1.3	0.9	1.3	0.0	0.3	0.3	0.5	0.7

			How oft	en during t	he last wee	ek have j	ou consul	ned chees	e/curds?			
				Male					Female			Total
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	ΤΟΙΔΙ
Number o responden		305	304	296	307	1212	303	307	320	330	1260	2472
Never	Ν	23	31	20	24	98	26	33	34	29	122	220
INEVEI	%	7.541	10.2	6.757	7.818	8.086	8.581	10.75	10.63	8.788	9.683	8.9
1-2 times	Ν	60	53	52	68	233	49	59	68	67	243	476
1-2 limes	%	19.7	17.4	17.6	22.1	19.2	16.2	19.2	21.3	20.3	19.3	19.3
3-5 times	Ν	91	81	109	98	379	109	99	107	113	428	807
3-5 limes	%	29.8	26.6	36.8	31.9	31.3	36.0	32.2	33.4	34.2	34.0	32.6
6-7 times	Ν	128	135	115	113	491	115	116	110	120	461	952
0-7 unites	%	42.0	44.4	38.9	36.8	40.5	38.0	37.8	34.4	36.4	36.6	38.5
Insufficient	Ν	3	4	0	4	11	4	0	1	1	6	17
data	%	1.0	1.3	0.0	1.3	0.9	1.3	0.0	0.3	0.3	0.5	0.7

Table 7.12. Consumption of cheese/curds during the last week by sex and age

Table 7.13. Consumption of milk and milk products during the last week by sex and age

		How	w often dur	ing the las	t week have	e you coi	nsumed mi	lk and milk	products?	)		
				Male					Female			Total
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	TULAI
Number o responden		305	304	296	307	1212	303	307	320	330	1260	2472
Never	Ν	134	147	143	153	577	104	117	135	118	474	1051
INEVEI	%	43.93	48.36	48.31	49.84	47.61	34.32	38.11	42.19	35.76	37.62	42.52
1-2 times	Ν	104	95	97	89	385	107	113	111	128	459	844
1-2 times	%	34.1	31.3	32.8	29.0	31.8	35.3	36.8	34.7	38.8	36.4	34.1
3-5 times	Ν	42	41	42	48	173	52	51	57	66	226	399
3-5 times	%	13.8	13.5	14.2	15.6	14.3	17.2	16.6	17.8	20.0	17.9	16.1
C 7 times	Ν	22	17	14	13	66	36	26	16	17	95	161
6-7 times	%	7.2	5.6	4.7	4.2	5.4	11.9	8.5	5.0	5.2	7.5	6.5
Insufficient	Ν	3	4	0	4	11	4	0	1	1	6	17
data	%	1.0	1.3	0.0	1.3	0.9	1.3	0.0	0.3	0.3	0.5	0.7

			How o	ften during	the last we	eek have	you consu	med chick	en?			
				Male					Female			Total
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	TOTAL
Number o responden		305	304	296	307	1212	303	307	320	330	1260	2472
Never	Ν	100	100	122	133	455	117	123	134	157	531	986
never	%	32.79	32.89	41.22	43.32	37.54	38.61	40.07	41.88	47.58	42.14	39.89
1.0 5	Ν	181	181	156	154	672	165	171	170	159	665	1337
1-2 times	%	59.3	59.5	52.7	50.2	55.4	54.5	55.7	53.1	48.2	52.8	54.1
3-5 times	Ν	17	19	14	16	66	15	11	12	11	49	115
3-5 times	%	5.6	6.3	4.7	5.2	5.4	5.0	3.6	3.8	3.3	3.9	4.7
6-7 times	Ν	4	0	4	0	8	2	2	3	2	9	17
6-7 times	%	1.3	0.0	1.4	0.0	0.7	0.7	0.7	0.9	0.6	0.7	0.7
Insufficient	Ν	3	4	0	4	11	4	0	1	1	6	17
data	%	1.0	1.3	0.0	1.3	0.9	1.3	0.0	0.3	0.3	0.5	0.7

## Table 7.14. Consumption of chicken during the last week by sex and age

Table 7.15. Consumption of fish during the last week by sex and age

			Но	w often dur	ing the las	t week ha	ave you co	nsumed fis	h?			
				Male					Female			Total
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	ΤΟΙΆΙ
Number o responden		305	304	296	307	1212	303	307	320	330	1260	2472
Never	Ν	129	119	127	125	500	127	157	168	176	628	1128
never	%	42.3	39.14	42.91	40.72	41.25	41.91	51.14	52.5	53.33	49.84	45.63
1-2 times	Ν	154	167	149	160	630	157	128	140	137	562	1192
1-2 umes	%	50.5	54.9	50.3	52.1	52.0	51.8	41.7	43.8	41.5	44.6	48.2
3-5 times	Ν	17	12	20	18	67	15	21	11	14	61	128
3-5 times	%	5.6	3.9	6.8	5.9	5.5	5.0	6.8	3.4	4.2	4.8	5.2
6-7 times	Ν	2	2	0	0	4	0	0	0	2	2	6
6-7 times	%	0.7	0.7	0.0	0.0	0.3	0.0	0.0	0.0	0.6	0.2	0.2
Insufficient	Ν	3	4	0	4	11	4	1	1	1	7	18
data	%	1.0	1.3	0.0	1.3	0.9	1.3	0.3	0.3	0.3	0.6	0.7

		Но	ow often	during th	ne last we	eek have	you cons	sumed m	eat?			
				Male					Female			Total
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	TOLAI
Number of respond	lents	305	304	296	307	1212	303	307	320	330	1260	2472
Never	Ν	65	51	55	69	240	73	81	77	92	323	563
INEVEL	%	21.31	16.78	18.58	22.48	19.8	24.09	26.38	24.06	27.88	25.63	22.78
1-2 times	Ν	142	144	151	149	586	160	151	167	162	640	1226
1-2 times	%	46.6	47.4	51.0	48.5	48.3	52.8	49.2	52.2	49.1	50.8	49.6
3-5 times	Ν	81	86	71	73	311	56	66	63	61	246	557
5-5 times	%	26.6	28.3	24.0	23.8	25.7	18.5	21.5	19.7	18.5	19.5	22.5
6-7 times	Ν	14	19	19	12	64	11	8	12	14	45	109
6-7 times	%	4.6	6.3	6.4	3.9	5.3	3.6	2.6	3.8	4.2	3.6	4.4
	Ν	3	4	0	4	11	3	1	1	1	6	17
Insufficient data	%	1.0	1.3	0.0	1.3	0.9	1.0	0.3	0.3	0.3	0.5	0.7

Table 7.16. Consumption of meat during the last week by sex and age

Table 7.17. Consumption of meat products during the last week by sex and age

		How of	ten during	g the last	week h	nave you	consum	ed meat	products	?		
				Male					Female	i		
		25-34	35-44	45-54	55- 65	Total	25-34	35- 44	45-54	55-65	Total	Total
Number of respond	lents	305	304	296	307	1212	303	307	320	330	1260	2472
Never	Ν	99	113	125	136	473	130	139	156	165	590	1063
Never	%	32.46	37.17	42.23	44.3	39.03	42.9	45.28	48.75	50	46.83	43
1.0 times	Ν	128	131	114	125	498	111	117	106	125	459	957
1-2 times	%	42.0	43.1	38.5	40.7	41.1	36.6	38.1	33.1	37.9	36.4	38.7
3-5 times	Ν	63	50	51	39	203	48	48	52	32	180	383
3-5 times	%	20.7	16.4	17.2	12.7	16.7	15.8	15.6	16.3	9.7	14.3	15.5
6-7 times	Ν	12	6	6	3	27	10	2	5	6	23	50
6-7 times	%	3.9	2.0	2.0	1.0	2.2	3.3	0.7	1.6	1.8	1.8	2.0
Insufficient data	Ν	3	4	0	4	11	4	1	1	2	8	19
msunicient data	%	1.0	1.3	0.0	1.3	0.9	1.3	0.3	0.3	0.6	0.6	0.8

	h	low often	during t	he last w	veek hav	e you co	nsumed	fresh veg	getables?			
				Male					Female			Total
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	TOLAT
Number of responder	nts	305	304	296	307	1212	303	307	320	330	1260	2472
Never	Ν	37	18	24	25	104	32	36	41	25	134	238
INEVEI	%	12.13	5.921	8.108	8.143	8.581	10.56	11.73	12.81	7.576	10.63	9.628
1.0 times	Ν	59	59	38	55	211	50	64	55	77	246	457
1-2 times	%	19.3	19.4	12.8	17.9	17.4	16.5	20.8	17.2	23.3	19.5	18.5
3-5 times	Ν	110	119	135	116	480	119	122	138	121	500	980
3-5 times	%	36.1	39.1	45.6	37.8	39.6	39.3	39.7	43.1	36.7	39.7	39.6
6.7 times	Ν	96	104	99	107	406	98	84	85	106	373	779
6-7 times	%	31.5	34.2	33.4	34.9	33.5	32.3	27.4	26.6	32.1	29.6	31.5
Incufficient data	Ν	3	4	0	4	11	4	1	1	1	7	18
Insufficient data	%	1.0	1.3	0.0	1.3	0.9	1.3	0.3	0.3	0.3	0.6	0.7

Table 7.18. Consumption of fresh vegetables during the last week by sex and age

Table 7.19. Consumption of other vegetables during the last week by sex and age

		How o	often dur	ing the la	ast week	have yo	u consu	ned othe	r vegetabl	les?		
				Male					Female			Total
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	TOLAI
Number o responden		305	304	296	307	1212	303	307	320	330	1260	2472
Never	Ν	194	189	190	186	759	181	189	205	187	762	1521
Nevel	%	63.61	62.17	64.19	60.59	62.62	59.74	61.56	64.06	56.67	60.48	61.53
1-2 times	Ν	82	76	85	82	325	82	72	64	91	309	634
1-2 times	%	26.9	25.0	28.7	26.7	26.8	27.1	23.5	20.0	27.6	24.5	25.6
2 E timos	Ν	20	30	18	28	96	29	40	42	45	156	252
3-5 times	%	6.6	9.9	6.1	9.1	7.9	9.6	13.0	13.1	13.6	12.4	10.2
6-7 times	Ν	6	5	3	7	21	7	5	8	6	26	47
0-7 unles	%	2.0	1.6	1.0	2.3	1.7	2.3	1.6	2.5	1.8	2.1	1.9
Insufficient	Ν	3	4	0	4	11	4	1	1	1	7	18
data	%	1.0	1.3	0.0	1.3	0.9	1.3	0.3	0.3	0.3	0.6	0.7

		How ofte	n during	the last	week ha	ve you c	onsumed	l fresh frui	t/berries?	)		
				Male					Female			Total
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	Total
Number of respond	lents	305	304	296	307	1212	303	307	320	330	1260	2472
Never	Ν	105	105	109	129	448	92	115	134	137	478	926
Never	%	34.43	34.54	36.82	42.02	36.96	30.36	37.46	41.88	41.52	37.94	37.46
1-2 times	Ν	118	103	111	114	446	104	116	107	131	458	904
1-2 times	%	38.7	33.9	37.5	37.1	36.8	34.3	37.8	33.4	39.7	36.3	36.6
3-5 times	Ν	46	55	47	31	179	57	49	59	40	205	384
5-5 times	%	15.1	18.1	15.9	10.1	14.8	18.8	16.0	18.4	12.1	16.3	15.5
6.7 times	Ν	33	37	29	29	128	46	26	19	21	112	240
6-7 times	%	10.8	12.2	9.8	9.4	10.6	15.2	8.5	5.9	6.4	8.9	9.7
Insufficient data	Ν	3	4	0	4	11	4	1	1	1	7	18
msunicient data	%	1.0	1.3	0.0	1.3	0.9	1.3	0.3	0.3	0.3	0.6	0.7

Table 7.20. Consumption of fresh fruit/berries during the last week by sex and age

Table 7.21. Consumption of other fruit/berries during the last week by sex and age

		How of	ten during	g the last	week ha	ve you co	onsumed	other frui	t/berries?			
				Male					Female			Total
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	TULAI
Number of responde	ents	305	304	296	307	1212	303	307	320	330	1260	2472
Never	Ν	232	236	245	237	950	230	249	267	269	1015	1965
INEVEI	%	76.07	77.63	82.77	77.2	78.38	75.91	81.11	83.44	81.52	80.56	79.49
1.2 times	Ν	48	45	38	47	178	47	42	37	40	166	344
1-2 times	%	15.7	14.8	12.8	15.3	14.7	15.5	13.7	11.6	12.1	13.2	13.9
3-5 times	Ν	19	10	11	15	55	17	11	13	17	58	113
5-5 times	%	6.2	3.3	3.7	4.9	4.5	5.6	3.6	4.1	5.2	4.6	4.6
6-7 times	Ν	3	9	2	4	18	5	4	2	3	14	32
0-7 111165	%	1.0	3.0	0.7	1.3	1.5	1.7	1.3	0.6	0.9	1.1	1.3
Insufficient data	Ν	3	4	0	4	11	4	1	1	1	7	18
	%	1.0	1.3	0.0	1.3	0.9	1.3	0.3	0.3	0.3	0.6	0.7

	How	often du	ring the l	ast week	have you	consume	d sweet p	astries (c	ookies,ca	nkes)?		
				Male					Female			Total
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	ΤΟΙΔΙ
Number of responde	ents	305	304	296	307	1212	303	307	320	330	1260	2472
Never	Ν	45	58	65	83	251	62	72	79	87	300	551
Never	%	14.8	19.1	22.0	27.0	20.7	20.5	23.5	24.7	26.4	23.8	22.3
1-2 times	Ν	101	102	102	97	402	98	100	106	130	434	836
1-2 times	%	33.1	33.6	34.5	31.6	33.2	32.3	32.6	33.1	39.4	34.4	33.8
3-5 times	Ν	125	113	110	110	458	106	96	108	95	405	863
5-5 times	%	41.0	37.2	37.2	35.8	37.8	35.0	31.3	33.8	28.8	32.1	34.9
6-7 times	Ν	31	27	19	13	90	33	37	26	17	113	203
0-7 times	%	10.2	8.9	6.4	4.2	7.4	10.9	12.1	8.1	5.2	9.0	8.2
Insufficient data	Ν	3	4	0	4	11	4	2	1	1	8	19
insuncient data	%	1.0	1.3	0.0	1.3	0.9	1.3	0.7	0.3	0.3	0.6	0.8

## Table 7.22. Consumption of sweet pastries during the last week by sex and age

## Table 7.23. Consumption of sweets during the last week by sex and age

	ŀ	low often	during ti	he last we	ek have	you consu	med swee	ets (cand	y, chocola	ate)?		
				Male					Female			Total
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	Total
Number of responde	ents	305	304	296	307	1212	303	307	320	330	1260	2472
Never	Ν	103	104	111	117	435	76	97	92	113	378	813
never	%	33.8	34.2	37.5	38.1	35.9	25.1	31.6	28.8	34.2	30.0	32.9
1-2 times		83	94	95	98	370	95	93	100	118	406	776
		27.2	30.9	32.1	31.9	30.5	31.4	30.3	31.3	35.8	32.2	31.4
3-5 times	Ν	93	85	78	80	336	86	80	95	75	336	672
3-5 times	%	30.5	28.0	26.4	26.1	27.7	28.4	26.1	29.7	22.7	26.7	27.2
6-7 times	Ν	23	17	12	8	60	42	35	32	23	132	192
6-7 times	%	7.5	5.6	4.1	2.6	5.0	13.9	11.4	10.0	7.0	10.5	7.8
Insufficient data	Ν	3	4	0	4	11	4	2	1	1	8	19
	%	1.0	1.3	0.0	1.3	0.9	1.3	0.7	0.3	0.3	0.6	0.8

		H	ow often d	during the	e last weel	k have yo	u consum	ned soft di	rinks?			
				Male					Female			
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	Total
Number of respond	lents	305	304	296	307	1212	303	307	320	330	1260	2472
Never	Ν	71	63	74	91	299	87	122	115	149	473	772
never	%	23.28	20.72	25	29.64	24.67	28.71	39.74	35.94	45.15	37.54	31.23
1-2 times	Ν	98	125	107	116	446	115	99	119	123	456	902
1-2 times	%	32.1	41.1	36.1	37.8	36.8	38.0	32.2	37.2	37.3	36.2	36.5
3-5 times	Ν	90	81	89	73	333	70	62	60	46	238	571
3-5 times	%	29.5	26.6	30.1	23.8	27.5	23.1	20.2	18.8	13.9	18.9	23.1
6-7 times	Ν	43	31	26	23	123	27	23	25	11	86	209
0-7 times	%	14.1	10.2	8.8	7.5	10.1	8.9	7.5	7.8	3.3	6.8	8.5
Insufficient data	Ν	3	4	0	4	11	4	1	1	1	7	18
insuncient uala	%	1.0	1.3	0.0	1.3	0.9	1.3	0.3	0.3	0.3	0.6	0.7

## Table 7.24. Consumption of soft drinks during the last week by sex and age

		ŀ	low ofter	n during	the last	week ha	ve you co	onsumed e	ggs?			
				Male					Female			Tatal
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	Total
Number of respond	ents	305	304	296	307	1212	303	307	320	330	1260	2472
Never	Ν	84	75	75	94	328	80	87	93	81	341	669
Never	%	27.54	24.67	25.34	30.62	27.06	26.4	28.34	29.06	24.55	27.06	27.06
1-2 times	Ν	147	163	157	153	620	151	158	161	189	659	1279
1-2 lines	%	48.2	53.6	53.0	49.8	51.2	49.8	51.5	50.3	57.3	52.3	51.7
3-5 times	Ν	53	44	53	45	195	50	47	43	51	191	386
3-5 times	%	17.4	14.5	17.9	14.7	16.1	16.5	15.3	13.4	15.5	15.2	15.6
6-7 times	Ν	18	18	11	11	58	18	14	22	8	62	120
	%	5.9	5.9	3.7	3.6	4.8	5.9	4.6	6.9	2.4	4.9	4.9
Insufficient data	Ν	3	4	0	4	11	4	1	1	1	7	18
msumcient data	%	1.0	1.3	0.0	1.3	0.9	1.3	0.3	0.3	0.3	0.6	0.7

## **Results of Indicators**

Indicator		Male			Femal	е		Tota	1
malcator	%	Mean	St Dev	%	Mean	St Dev	%	Mean	St Dev
Primary indicators									
<ul> <li>Mean and standard deviation of total cholesterol concentration</li> </ul>		218.4 (5.7)	56.3 (1.5)		233.6 (6.1)	62.3 (1.6)		227.8 (5.9)	60.5 (1.6)
<ul> <li>Prevalence of elevated serum total cholesterol ≥ 190 mg/dl (5.0 mmol/l)</li> </ul>	66.8			75.5			72.1		
Awareness of hypercholesterolemia	7.7			5.9			6.5		
<ul> <li>Proportion of population with cholesterol measurement in the past 5 years</li> </ul>	13.3			11.3			12.2		
Secondary indicators									
• Prevalence of serum total cholesterol $\geq$ 175 mg/dl (4.5 mmol/l)	77.6			83.6			81.2		
<ul> <li>Proportion of the population with cholesterol measurement in the past year</li> </ul>	10.1			7.2			8.6		

## **LIPIDS MEASUREMENT**

				Male					Female	)				Total		
Cholestere measureme		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total
Number of respondents	5	302	301	294	303	1200	299	305	316	328	1248	601	606	610	631	2448
Never	N	280	274	243	233	1030	275	281	278	265	1099	555	555	521	498	2129
	%	92.7	91.0	82.7	76.9	85.8	92.0	92.1	88.0	80.8	88.1	92.3	91.6	85.4	78.9	87.0
In the past 12	Ν	18	16	34	53	121	16	12	25	37	90	34	28	59	90	211
months	%	6.0	5.3	11.6	17.5	10.1	5.4	3.9	7.9	11.3	7.2	5.7	4.6	9.7	14.3	8.6
	N	3	11	14	10	38	7	12	11	21	51	10	23	25	31	89
Within 1-5 y	%	1.0	3.7	4.8	3.3	3.2	2.3	3.9	3.5	6.4	4.1	1.7	3.8	4.1	4.9	3.6
_	N	1	0	3	7	11	1	0	2	5	8	2	0	5	12	19
> 5 years ago	%	0.3	0.0	1.0	2.3	0.9	0.3	0.0	0.6	1.5	0.6	0.3	0.0	0.8	1.9	0.8
Insufficient	N	3	3	2	4	12	4	2	4	2	12	7	5	6	6	24
data	%	1.0	1.0	0.7	1.3	1.0	1.3	0.7	1.3	0.6	1.0	1.2	0.8	1.0	1.0	1.0

#### Table 8.1. Lipid measurement status of population by age groups and gender

## Table 8.2. Lipid measurement history of population by age groups and gender

	Male								Female	9		Total					
Reporte cholesterol	-	25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	
Number of resp	ondents	300	297	287	287	1171	294	303	314	313	1224	594	600	601	600	2395	
Normal	Ν	18	13	27	38	96	16	21	23	20	80	34	34	50	58	176	
Normai	%	6.0	4.4	9.4	13.2	8.2	5.4	6.9	7.3	6.4	6.5	5.7	5.7	8.3	9.7	7.3	
High	Ν	2	10	17	16	45	3	2	13	28	46	5	12	30	44	91	
High	%	0.7	3.4	5.9	5.6	3.8	1.0	0.7	4.1	8.9	3.8	0.8	2.0	5.0	7.3	3.8	

Table 8.3. Cholesterol measurement data	of population by age groups and gender
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Choleste				Male					Female	9		Total					
measuren	nent	25-34	25-34 35-44 45-54 55-65 Total					35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	
Number o responder		72	83	123	150	428	137	153	177	214	681	209	236	300	364	1109	
< 190 mg/dl	Ν	31	34	33	44	142	69	52	29	17	167	100	86	62	61	309	
(5.0 mmol/l)	%	43.1	41.0	26.8	29.3	33.2	50.4	34.0	16.4	7.9	24.5	47.8	36.4	20.7	16.8	27.9	
< 175 mg/dl	Ν	19	29	21	27	96	53	33	16	10	112	72	62	37	37	208	
(4.5 mmol/l)	%	26.4	34.9	17.1	18.0	22.4	38.7	21.6	9.0	4.7	16.4	34.4	26.3	12.3	10.2	18.8	
≥ 190 mg/dl	Ν	41	49	90	106	286	68	101	148	197	514	109	150	238	303	800	
(5.0 mmol/l)	%	56.9	59.0	73.2	70.7	66.8	49.6	66.0	83.6	92.1	75.5	52.2	63.6	79.3	83.2	72.1	
≥ 175 mg/dl	Ν	53	54	102	123	332	84	120	161	204	569	137	174	263	327	901	
(4.5 mmol/l)	%	73.6	65.1	82.9	82.0	77.6	61.3	78.4	91.0	95.3	83.6	65.6	73.7	87.7	89.8	81.2	

Table 8.4. Awareness of elevated serum cholesterol

Awareness of				Male	1				Fema	le				Total	1	
hypercholesterolemia		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total
Number of responder	nts	41	49	89	105	284	67	101	147	196	511	108	150	236	301	795
Awareness of N		1	5	8	8	22	1	0	7	22	30	2	5	15	30	52
hypercholesterolemia %		2.4	10.2	9.0	7.6	7.7	1.5	0.0	4.8	11.2	5.9	1.9	3.3	6.4	10.0	6.5

## **BLOOD GLUCOSE MEASUREMENT**

Glucose				Male					Female	<b>;</b>				Total		
measureme	ent	25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total
Number o responden		302	301	294	303	1200	299	305	316	328	1248	601	606	610	631	2448
In the past	Ν	29	37	46	84	196	41	41	54	80	216	70	78	100	164	412
12 months	%	9.6	12.3	15.6	27.7	16.3	13.7	13.4	17.1	24.4	17.3	11.6	12.9	16.4	26.0	16.8
Within the	Ν	35	57	70	104	266	73	67	81	124	345	108	124	151	228	611
past 3 years	%	11.6	18.9	23.8	34.3	22.2	24.4	22.0	25.6	37.8	27.6	18.0	20.5	24.8	36.1	25.0

Table 9.2. Awareness of elevated serum glucose

A				Male					Female					Total		
Awareness of hyperglicem	hyperglicemia		35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total
Number of respondents			19	40	58	127	18	27	41	77	163	28	46	81	135	290
Awareness of	Ν	0	1	5	19	25	1	4	4	19	28	1	5	9	38	53
hyperglicemia	%	0.0	5.3	12.5	32.8	19.7	5.6	14.8	9.8	24.7	17.2	3.6	10.9	11.1	28.1	18.3

 Table 9.3. Glucose measurement data of population by age groups and gender

				Male					Female	ò				Total		
Glucose measurem	nent	25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total
Number of responden	ts	72	83	123	150	428	137	153	177	214	681	209	236	300	364	1109
110 m m/sll (0,1 m m s l/l)	Ν	62	64	83	92	301	118	126	136	137	517	180	190	219	229	818
< 110 mg/dl (6.1 mmol/l)	%	86.1	77.1	67.5	61.3	70.3	86.1	82.4	76.8	64.0	75.9	86.1	80.5	73.0	62.9	73.8
≥ 110 mg/dl (6.1 mmol/l) and < 126 mg/dl (7.0	Ν	8	16	22	23	69	15	13	24	36	88	23	29	46	59	157
mmol/l)	%	11.1	19.3	17.9	15.3	16.1	10.9	8.5	13.6	16.8	12.9	11.0	12.3	15.3	16.2	14.2
≥ 126 mg/dl (7.0 mmol/l)	Ν	2	3	18	35	58	4	14	17	41	76	6	17	35	76	134
	%	2.8	3.6	14.6	23.3	13.6	2.9	9.2	9.6	19.2	11.2	2.9	7.2	11.7	20.9	12.1
≥ 110 mg/dl (6.1 mmol/l)	Ν	10	19	40	58	127	19	27	41	77	164	29	46	81	135	291
2 110 mg/ai (6.1 mmoi/i)	%	13.9	22.9	32.5	38.7	29.7	13.9	17.6	23.2	36.0	24.1	13.9	19.5	27.0	37.1	26.2

## **BLOOD PRESSURE**

Last measured blood pressure	ļ	Male	Female	Total
Number of respondents		1212	1260	2472
Within the past 12 months	Ν	974	1114	2088
Within the past 12 months	%	80.4	88.4	84.5
1-5 years ago	Ν	117	96	213
	%	9.7	7.6	8.6
> 5 years ago	Ν	15	11	26
	%	1.2	0.9	1.1
Never	Ν	101	38	139
Never	%	8.3	3.0	5.6
heaufficient data	Ν	5	1	6
Insufficient data	%	0.4	0.1	0.2

Table 10.1. Last measured blood pressure of the respondents by gender

#### Table 10.2. Prevalence of actual and potential hypertensives by gender and age groups

				Male	l				Femal	e				Tota	1	
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total
Number of respondents		294	295	289	300	1178	296	302	316	325	1239	590	597	605	625	2417
Prevalence of actual and potential	Ν	20	61	112	186	379	15	56	134	235	440	35	117	246	421	819
hypertensives: Syst ≥140 or Diast ≥ 90 or drugs currently (within last 2 weeks)	%	6.8	20.7	38.8	62.0	32.2	5.1	18.5	42.4	72.3	35.5	5.9	19.6	40.7	67.4	33.9

Table 10.3. Awareness of hypertension

				Male				ŀ	Femal	е				Total		
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total
Number of respondents		20	61	112	186	379	15	56	134	235	440	35	117	246	421	819
Awareness of	N	9	22	74	130	235	3	29	92	183	307	12	51	166	313	542
elevated blood pressure	%	45.0	36.1	66.1	69.9	62.0	20.0	51.8	68.7	77.9	69.8	34.3	43.6	67.5	74.3	66.2

				Male					Femal	е				Total		
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total
Number of responder Not aware (by docto among AP Hypertens	or)	11	39	38	56	144	12	27	42	52	133	23	66	80	108	277
First time detected	Ν	7	14	14	21	56	4	7	4	16	31	11	21	18	37	87
First time detected Hypertension (BP ≥ 140/90)	%	63.6	35.9	36.8	37.5	38.9	33.3	25.9	9.5	30.8	23.3	47.8	31.8	22.5	34.3	31.4
Knew that had BP $\geq$	Ν	2	6	9	6	23	3	2	5	1	11	5	8	14	7	34
140/90, but did not take drugs	%	18.2	15.4	23.7	10.7	16.0	25.0	7.4	11.9	1.9	8.3	21.7	12.1	17.5	6.5	12.3
Knew that had BP ≥ 140/90 and took	Ν	2	19	15	29	65	5	18	33	35	91	7	37	48	64	156
drugs	%	18.2	48.7	39.5	51.8	45.1	41.7	66.7	78.6	67.3	68.4	30.4	56.1	60.0	59.3	56.3

Table 10.4. Proportion among not aware AP Hypertensives.

				Male					Female	)				Total		
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total
Systolic BP	Mean	118.6	123.6	131.3	137.9	127.9	109.1	114.9	125.7	137.4	122.2	113.8	119.2	128.3	137.6	124.9
(mmHg)	Standard deviation	9.9	11.8	17.9	19.7	17.1	10.8	15.5	17.5	22.4	20.3	11.4	14.4	17.9	21.1	19.0
Distolic BP	Mean	76.8	80.2	84.3	86.2	81.9	71.9	75.3	80.4	85.1	78.3	74.3	77.7	82.3	85.6	80.1
(mmHg)	Standard deviation	8.2	9.0	12.1	11.9	11.0	7.2	9.9	10.9	12.9	11.6	8.0	9.7	11.6	12.5	11.5
Pulse	Mean	76.1	77.6	76.5	76.3	76.6	74.6	75.6	75.7	75.5	75.4	75.3	76.6	76.1	75.9	76.0
(in min)	Standard deviation	7.3	7.1	7.6	7.4	7.4	6.8	6.7	7.2	8.1	7.2	7.1	7.0	7.4	7.8	7.3

## Table 10.6. Categories of blood pressure by gender and age groups (I)

				Male					Femal	е				Total		
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total
Number of respondent	S	297	298	290	302	1187	299	304	318	327	1248	596	602	608	629	2435
Prevalence of normal blood pressure (syst <	Ν	158	80	54	35	327	239	189	116	60	604	397	269	170	95	931
120 and diast <80)	%	53.2	26.8	18.6	11.6	27.5	79.9	62.2	36.5	18.3	48.4	66.6	44.7	28	15.1	38.2
Prevalence of prehypertension (syst	Ν	121	170	145	125	561	53	82	122	117	374	174	252	267	242	935
120-139 or diast 80-89)	%	40.7	57.0	50.0	41.4	47.3	17.7	27.0	38.4	35.8	30.0	29.2	41.9	43.9	38.5	38.4
Prevalence of stage I hypertension (syst 140-	Ν	8	38	48	88	182	6	27	53	84	170	14	65	101	172	352
159 or diast 90-99)	%	2.7	12.8	16.6	29.1	15.3	2.0	8.9	16.7	25.7	13.6	2.3	10.8	16.6	27.3	14.5
Prevalence of stage II	Ν	10	10	43	54	117	1	6	27	66	100	11	16	70	120	217
hypertension (syst ≥ 160 or diast≥ 100)	%	3.4	3.4	14.8	17.9	9.9	0.3	2.0	8.5	20.2	8.0	1.8	2.7	11.5	19.1	8.9
Prevalence of isolated systolic hypertension	Ν	0	8	10	39	57	0	4	22	39	65	0	12	32	78	122
(syst BP $\ge$ 140 and diast BP < 90)	%	0.0	2.7	3.4	12.9	4.8	0.0	1.3	6.9	11.9	5.2	0.0	2.0	5.3	12.4	5.0

				Male				I	Femal	e				Tota	1	
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total
Number of responder	nts	297	298	290	302	1187	299	304	318	327	1248	596	602	608	629	2435
Prevalence of normotensives (syst	N	279	250	199	160	888	292	271	238	177	978	571	521	437	337	1866.0
< 140 and diast <90)	%	93.9	83.9	68.6	53.0	74.8	97.7	89.1	74.8	54.1	78.4	95.8	86.5	71.9	53.6	76.6
Prevalence of hypertension (syst ≥	N	18	48	91	142	299	7	33	80	150	270	25	81	171	292	569
140 or diast $\ge$ 90)	%	6.1	16.1	31.4	47.0	25.2	2.3	10.9	25.2	45.9	21.6	4.2	13.5	28.1	46.4	23.4
Prevalence of elevated systolic	N	12	30	70	120	232	2	20	65	131	218	14	50	135	251	450
blood pressure (BP ≥ 140)	%	4.0	10.1	24.1	39.7	19.5	0.7	6.6	20.4	40.1	17.5	2.3	8.3	22.2	39.9	18.5
Prevalence of	N	18	40	81	103	242	7	29	58	111	205	25	69	139	214	447
elevated diastolic blood pressure (BP ≥ 90)	%	6.1	13.4	27.9	34.1	20.4	2.3	9.5	18.2	33.9	16.4	4.2	11.5	22.9	34.0	18.4

Table 10.7. Categories of blood pressure by gender and age groups (II)

# Table 10.8. Prevalence and effectiveness of antihypertensive drug treatment, and proportion under control for hypertension among actual and potential hypertensives.

				Male					Female					Total		
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total
Number of responde with AP hypertensiv		20	61	112	186	379	15	56	134	235	440	35	117	246	421	819
Prevalence of current antihypertensive	Ν	4	21	60	113	198	8	39	103	185	335	12	60	163	298	533
drug treatment among actual and potential hypertensives	%	20.0	34.4	53.6	60.8	52.2	53.3	69.6	76.9	78.7	76.1	34.3	51.3	66.3	70.8	65.1
Effectiveness of antihypertensive drug treatment	Ν	2	13	19	43	77	8	23	54	84	169	10	36	73	127	246
among treated AP hypertensives	%	50.0	61.9	31.7	38.1	38.9	100.0	59.0	52.4	45.4	50.4	83.3	60.0	44.8	42.6	46.2
Proportion under control among actual and potential	N	2	13	19	43	77	8	23	54	84	169	10	36	73	127	246
hypertensives	%	10.0	21.3	17.0	23.1	20.3	53.3	41.1	40.3	35.7	38.4	28.6	30.8	29.7	30.2	30.0

			Male				F	emale	9				Total	1	
	25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total
Number of respondents	55	100	142	191	488	59	120	208	277	664	114	220	350	468	1152
Physician	16	28	57	93	194	16	30	88	154	288	32	58	145	247	482
Thysician	29.1	28	40.1	48.7	39.8	27.1	25	42.3	55.6	43.4	28.1	26.4	41.4	52.8	41.8
Pharmacist	1	0	1	2	4	0	3	1	4	8	1	3	2	6	12
	1.8	0.0	0.7	1.0	0.8	0.0	2.5	0.5	1.4	1.2	0.9	1.4	0.6	1.3	1.0
Friends/relatives	19	36	48	53	156	19	34	35	42	130	38	70	83	95	286
Friends/relatives	34.5	36.0	33.8	27.7	32.0	32.2	28.3	16.8	15.2	19.6	33.3	31.8	23.7	20.3	24.8
Took medicine by	15	23	27	29	94	17	48	77	66	208	32	71	104	95	302
him/herself	27.3	23.0	19.0	15.2	19.3	28.8	40.0	37.0	23.8	31.3	28.1	32.3	29.7	20.3	26.2
Insufficient data	4	13	9	14	40	7	5	7	11	30	11	18	16	25	70
	7.3	13.0	6.3	7.3	8.2	11.9	4.2	3.4	4.0	4.5	9.6	8.2	4.6	5.3	6.1

Table 10.9. Adviser of antihypertensive drug treatment in the population

 
 Table 10.10. Proportion of population with own blood pressure measurement device and skills and awareness of normal BP range

Indicators	Number	Total number of respondents	%
Proportion of population with own blood pressure measurement device	1987	2393	83.0
Proportion of population with blood pressure measurement skills	2133	2428	87.9
Proportion of population who know what is the normal blood pressure	1419	2337	60.7

Table 10.11. Mean arm circumference

Arm circumference	Male	Female	Total
Mean	31.7	29.8	30.7
Standard deviation	3.2	4.0	3.7

Table 10.12. Different size of cuffs

		Male		I	Female			Total	
Size of cuffs	Number	Total number of males	%	Number	Total number of females	%	Number	Total number of respondents	%
Small	25	1181	2.1	126	1243	10.1	151	2424	6.2
Normal	741	1181	62.7	877	1243	70.6	1618	2424	66.7
Large	415	1181	35.1	240	1243	19.3	655	2424	27.0

				Male				ŀ	emal	e				Total		
		25- 34	35- 44	45- 54	55- 65	Total	25- 34	35- 44	45- 54	55- 65	Total	25- 34	35- 44	45- 54	55- 65	Total
Number of respondents win actual and poten hypertensives	tial	20	61	112	186	379	15	56	134	235	440	35	117	246	421	819
Prevalence of advise of non- pharmacological treatment of hypertension	N	3	8	39	57	107	1	12	39	84	136	4	20	78	141	243
during last 12 months among actual and potential hypertensives	%	15.0	13.1	34.8	30.6	28.2	6.7	21.4	29.1	35.7	30.9	11.4	17.1	31.7	33.5	29.7
Prevalence of attempt of non- pharmacological treatment of hypertension	N	1	3	22	37	63	1	8	27	62	98	2	11	49	99	161
during last 12 months among actual and potential hypertensives	%	5.0	4.9	19.6	19.9	16.6	6.7	14.3	20.1	26.4	22.3	5.7	9.4	19.9	23.5	19.7
Prevalence of successful attempt of non- pharmacological treatment of	N	5	4	19	29	57	3	8	28	51	90	8	12	47	80	147
hypertension during last 12 months among actual and potential hypertensives	%	25.0	6.6	17.0	15.6	15.0	20.0	14.3	20.9	21.7	20.5	22.9	10.3	19.1	19.0	17.9

## Table 10.13. Prevalence of non-pharmacological treatment of hypertension

## Table 10.14. Prevalence of self-reported history of high blood pressure

				Male				F	emale	)				Total		
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total
Number of respondent		305	304	296	307	1212	303	307	320	330	1260	608	611	616	637	2472
Prevalence of self-reported	N	41	63	114	170	388	34	61	132	218	445	75	124	246	388	833
history of high blood pressure	%	13.4	20.7	38.5	55.4	32.0	11.2	19.9	41.3	66.1	35.3	12.3	20.3	39.9	60.9	33.7

				Male					Female	9				Total		
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total
Number of responden	ts	294	291	283	297	1165	294	299	310	324	1227	588	590	593	621	2392
Normotensive-aware- treated (controlled	Ν	2	13	19	43	77	8	23	54	84	169	10	36	73	127	246
hypertension)	%	0.7	4.5	6.7	14.5	6.6	2.7	7.7	17.4	25.9	13.8	1.7	6.1	12.3	20.5	10.3
Normotensive-aware-	N	30	39	39	40	148	31	30	38	34	133	61	69	77	74	281
untreated	%	10.2	13.4	13.8	13.5	12.7	10.5	10.0	12.3	10.5	10.8	10.4	11.7	13.0	11.9	11.7
Hypertensive-	Ν	10	27	29	41	107	7	13	16	24	60	17	40	45	65	167
unaware-untreated	%	3.4	9.3	10.2	13.8	9.2	2.4	4.3	5.2	7.4	4.9	2.9	6.8	7.6	10.5	7.0
Hypertensive-aware-	Ν	6	12	21	27	66	0	4	13	25	42	6	16	34	52	108
untreated	%	2.0	4.1	7.4	9.1	5.7	0.0	1.3	4.2	7.7	3.4	1.0	2.7	5.7	8.4	4.5
Hypertensive-aware-	Ν	2	8	39	69	118	0	16	49	100	165	2	24	88	169	283
treated	%	0.7	2.7	13.8	23.2	10.1	0.0	5.4	15.8	30.9	13.4	0.3	4.1	14.8	27.2	11.8
Normotensive-	Ν	244	192	136	77	649	248	213	140	57	658	492	405	276	134	1307
unaware-untreated	%	83.0	66.0	48.1	25.9	55.7	84.4	71.2	45.2	17.6	53.6	83.7	68.6	46.5	21.6	54.6

## Table 10.15. Status of population by blood pressure, awareness and treatment

#### Table 10.16. Prevalence of current antihypertensive drug treatment in the population

				Male					Female	)		Total
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	Total
Number of responder	nts	301	300	295	305	1201	300	305	318	328	1251	2452
Prevalence of current antihypertensive	N	4	21	60	113	198	8	39	103	185	335	533
drug treatment in the population	%	1.3	7.0	20.3	37.0	16.5	2.7	12.8	32.4	56.4	26.8	21.7

#### Table 10.17. Prevalence of use of antihypertensive drugs in the population

				Male				ŀ	Femal	e				Total		
		25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total	25-34	35-44	45-54	55-65	Total
Are you ever took medications to lower		303	301	296	307	1207	302	307	320	330	1259	605	608	616	637	2466
Are you ever took	N	55	100	142	191	488	59	120	208	277	664	114	220	350	468	1152
your blood pressure?	%	18.2	33.2	48.0	62.2	40.4	19.5	39.1	65.0	83.9	52.7	18.8	36.2	56.8	73.5	46.7

## Table 10.18. Classes of antihypertensive drugs

		Ant	tihypertensi	ive Class		
	Non recommended drugs	Diuretics	ACE Inhibitor	Calcium Channel Blockers	Beta Blockers	AR Blockers
Number of respondents	848	281	335	216	150	1
%	46.3	15.3	18.3	11.8	8.2	0.1

## **Results of Indicators**

		Mal	e		Fem	ale			Tota	I
Indicator	%	Mean	St De	ev %	Mean	s	t Dev	%	Mean	St Dev
Primary indicators										
<ul> <li>Prevalence of actual and potential hypertensives</li> </ul>	32.2			35	5			33.9		
<ul> <li>Prevalence of current antihypertensive drug treatment among actual and potential hypertensives</li> </ul>	52.2			76	1			65.1		
• Prevalence of current antihypertensive drug treatment in the population	16.5			26	8			21.7		
Awareness of hypertension	62.0			69	8			66.2		
<ul> <li>Mean and standard deviation of systolic blood pressure (mmHg)</li> </ul>		127.9	17.1		122.2	2	20.3		124.9	19.0
<ul> <li>Mean and standard deviation of diastolic blood pressure (mmHg)</li> </ul>		81.9	11.0		78.3		11.6		80.1	11.5
<ul> <li>Proportion of the population with blood pressure measurement in the past 5 years</li> </ul>	9.7			7.	6			8.6		
<ul> <li>Proportion under control among actual and potential hypertensives</li> </ul>	20.3			38	4			30.0		
Secondary indicators										
<ul> <li>Prevalence of elevated blood pressure (systolic BP ≥ 140 or diastolic BP ≥ 90)</li> </ul>	25.2			21	.6			23.4		
• Prevalence of elevated systolic blood pressure (≥ 140)	19.5			17	.5			18.5		
• Prevalence of elevated diastolic blood pressure (≥ 90)	20.4			16	.4			18.4		
<ul> <li>Prevalence of isolated systolic hypertension (systolic BP ≥ 140 and diastolic BP &lt; 90)</li> </ul>	4.8			5.2	:1			5.0		
• Prevalence of normal blood pressure (systolic BP < 120 and diastolic BP < 80)	27.5			48	.4			38.2		
<ul> <li>Prevalence of prehypertension (systolic BP 120-139 or diastolic BP 80-89)</li> </ul>	47.3			30	.0			38.4		
<ul> <li>Prevalence of normotension (systolic BP &lt; 140 and diastolic BP &lt; 90)</li> </ul>	74.8			78	.4			76.6		
<ul> <li>Prevalence of stage I hypertension (systolic BP 140- 159 or diastolic BP 90-99)</li> </ul>	15.3			13	.6			14.5		
<ul> <li>Prevalence of stage II hypertension (systolic BP ≥ 160 or diastolic BP ≥ 100)</li> </ul>	9.9			8.	D			8.9		
<ul> <li>Prevalence of use of antihypertensive drugs among actual and potential hypertensives</li> </ul>	74.7			92	.5			84.2		
<ul> <li>Prevalence of use of antihypertensive drugs in the population</li> </ul>	40.4			52	.7			46.7		
• Effectiveness of antihypertensive drug treatment	38.9			50	.4			46.2		
Prevalence of use of antihypertensive drugs prescribed by doctor	39.8			43	.4			41.8		
Prevalence of self-reported history of hypertension	32.0			35	.3			33.7		
<ul> <li>Proportion of population with blood pressure measurement in the past year</li> </ul>	80.7			88	5			84.7		

<ul> <li>Proportion of population with blood pressure measurement</li> </ul>	91.6			97.0			94.4		
<ul> <li>Proportion of population who had never measured before blood pressure</li> </ul>	8.4			3.0			5.6		
<ul> <li>Proportion of population with own blood pressure measurement device</li> </ul>								83.0	
<ul> <li>Proportion of population with blood pressure measurement skills</li> </ul>								87.9	
<ul> <li>Proportion of population who know what is the normal blood pressure</li> </ul>								60.7	
• Prevalence of advise of non-pharmacological treatment of hypertension during last 12 months	28.2			30.9			29.7		
<ul> <li>Prevalence of attempt of non-pharmacological treatment of hypertension</li> </ul>	16.6			22.3			19.7		
<ul> <li>Prevalence of successful attempt of non- pharmacological treatment of hypertension</li> </ul>	15.0			20.5			17.9		
Pulse		76.6	7.4		75.4	7.2		76.0	7.3
Arm circumference		31.7	3.2		29.8	4.0		30.7	3.7
Small cuff	2.1			10.1			6.2		
Normal cuff	62.7			70.6			66.7		
Large cuff	35.1			19.3			27.0		

## Status of population by blood pressure, awareness and treatment.

Indicators	Male %	Female %	Total %
Respondents with actual and potential hypertension:			
<ul> <li>Normotensive-aware-treated (controlled hypertension)</li> </ul>	6.6	13.8	10.3
Hypertensive-unaware-untreated	9.2	4.9	7.0
Hypertensive-aware-untreated	5.7	3.4	4.5
Hypertensive-aware-treated	10.1	13.4	11.8
Respondents with history of hypertension			
Normotensive-aware-untreated	12.7	10.8	11.7
Respondents without hypertension			
Normotensive-unaware-untreated	55.7	53.6	54.6

## ANTIPLATELET DRUGS

Prevalence of use of aspirin or similar drugs to prevent or treat heart disease or stroke (in the age group ≥ 55)						
		Male	Female			
		55-65	55-65	Total		
Respodents ≥ 55 years		307	330	637		
Yes	Ν	36	38	74		
	%	11.7	11.5	11.6		
No	Ν	271	292	563		
	%	88.3	88.5	88.4		

Table 12.1. Prevalence of use of aspirin or similar drugs to prevent or treat heart disease or stroke in<br/>the age group  $\geq$  55